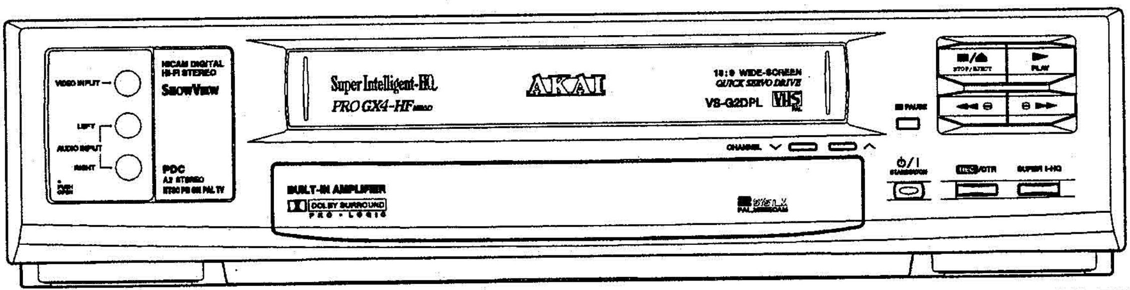
AKAI SERVICE MANUAL


VIDEO INPUT
LEFT
AUDIO INPUT
RIGHT
NICAM DIGITAL
HI-FI STEREO
ShowView
PDC
Super Intelligent-HQ
PRO GX4-HF
AKAI
16:9 WIDE-SCREEN
QUICK SERVO DRIVE
VS-G2DPL
VHS
STOP/EJECT
PLAY
PAUSE
CHANNEL
BUILT-IN AMPLIFIER
DOLBY SURROUND
PRO LOGIC
SUPER I-HQ

MODEL VS-G2DPL EOH-DN

HQ HIGH QUALITY
VHS PAL SECAM

SHOWVIEW G-CODE

VIDEO Plus+

DOLBY SURROUND
PRO • LOGIC

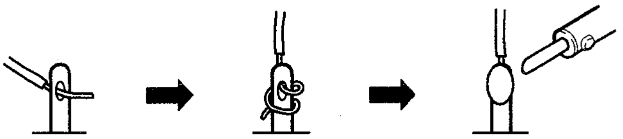
VIDEO CASSETTE RECORDER

MODEL VS-G2DPL EA-D/EK-N/EOG-D/EOH-DN/SEG-N

★ SAFETY INSTRUCTIONS

PRECAUTIONS DURING SERVICING

1. Parts identified by the ⚠ symbol are critical for safety. Replace them only with the parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation. These must also be replaced only with the specified replacements.
   Examples: RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts.
   Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers (insulating barriers)
   4) Insulation sheets for transistors
   5) Plastic screws for fixing micro switches
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap the ends of the wires securely around the terminals before soldering.



6. Make sure that wires do not contact heat producing parts (heat sinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Make sure that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

SAFETY CHECK AFTER SERVICING

After servicing, make measurements of leakage-current or resistance in order to determine that exposed parts are acceptably insulated from the supply circuit.

The leakage-current measurement should be done between accessible metal parts (such as chassis, ground terminal, microphone jacks, signal input/output connectors, etc.) and the earth ground through a resistor of 1500 ohms paralleled with a 0.15 µF capacitor, under the unit's normal working conditions.

The leakage-current should be less than 0.5 mA rms AC.

The resistance measurement should be done between accessible exposed metal parts and power cord plug prongs with the power switch (if included) "ON". The resistance should be more than 2.2 M ohms.

MAKE YOUR CONTRIBUTION TO PROTECT THE ENVIRONMENT

Used batteries with the ISO symbol for recycling as well as small accumulators (rechargeable batteries), mini-batteries (cells) and starter batteries should not be thrown into the garbage can.

Please leave them at an appropriate depot.

★ SPECIFICATIONS

VCR section

Format	VHS standard
Video recording system	Rotary, slant azimuth two-head helical scan system
Rotary heads	4 video heads and 2 audio heads
RF input	
EA-D	System B,G VHF:ch 0 - 5, 5A, 6 - 12, UHF:ch 21 - 69
EK-N	System I UHF:ch 21 - 69
EOG-D/EOH-DN	System B,G (PAL, SECAM) VHF:ch 2 - 4, 5 - 12 UHF:ch 21 - 69 Cable:ch S1' - S3', S1 - S41
SEG-N	System L VHF:ch B - C, 1 - 6 UHF:ch B - Q System B,G (PAL, SECAM) VHF:ch 2 - 4, 5 - 12 UHF:ch 21 - 69 Cable:ch S1' - S3', S1 - S41
RF output	
EA-D	System B type modulation VHF ch 0, 1 switchable (preset: ch 1)
EK-N	System I type modulation UHF ch 30 - 39 adjustable (preset: ch 35)
EOG-D/EOH-DN	System G type modulation UHF ch 30-39 adjustable (preset ch 36)
Stereo system	
EA-D/EOG-D	German Sound Multiplex (A2)
EK-N	NICAM-I (U.K. NICAM)
EOH-DN	German Sound Multiplex (A2) & B/G NICAM
SEG-N	SECAM-L NICAM & PAL-B/G NICAM
Recording (line input)	
EA-D/EK-N	PAL
EOG-D/EOH-DN	PAL SECAM (recorded as MESECAM)
SEG-N	SECAM/PAL (MESECAM)
Playback (line output)	
EA-D	PAL NTSC 4.43 (NTSC tape) Simulated PAL (NTSC tape)
EK-N/EOG-D/EOH-DN	PAL Simulated PAL (NTSC tape)
SEG-N	SECAM/PAL (MESECAM) Simulated PAL (NTSC tape)
Video	
Line input level	0.5-2.0 Vp-p/75 ohms, unbalanced
Line output level	1.0 Vp-p/75 ohms, unbalanced
S/N ratio	More than 45 dB
Horizontal resolution	More than 250 lines More than 230 lines (SECAM:SEG-N only)

Audio (VHS Hi-Fi: 2 ch, linear: 1 ch)	
Line input level	–6 dBs/50 k ohms, unbalanced
Line output level	–6 dBs/1 k ohms, unbalanced
Dynamic range	More than 90 dB (VHS Hi-Fi)
Frequency response	20 - 20,000 Hz (VHS Hi-Fi)
Wow & Flutter	Less than 0.005 % WRMS (VHS Hi-Fi)
Recording/Playback time	
CCIR	240 min. with E-240 cassette in SP mode 480 min. with E-240 cassette in LP mode
NTSC (playback only)	160 min. with T-160 cassette in SP mode 480 min. with T-160 cassette in EP mode
Tape speed	
CCIR	23.39 mm/sec. in SP mode 11.695 mm/sec. in LP mode
NTSC	33.35 mm/sec. in SP mode 11.12 mm/sec. in EP mode
Quick finder	
CCIR	Approx. 7 times normal speed
NTSC	Approx. 5 times normal speed
FF, RWD time	Approx. 2.5 min. with E-180 cassette
Timer	
Program	8 programs/1 year and OTR
Clock reference	Quartz crystal
Display	TV screen & FLD (tape counter, timer etc.)

Amplifier section

Power output (Pro Logic)	
Front	12 W (6 ohms, 10 % THD, EIAJ)/channel
Center	12 W (6 ohms, 10 %THD, EIAJ)
Surround	8 W (8 ohms [4 + 4], 10 %THD, EIAJ)
Peak music power output	Total 400 W
Frequency response	20 Hz - 20 kHz (–3 dB)
Required speaker impedance	6 ohms (Front) 6 ohms (Center) 4 ohms (Surround)

General

Power requirement	220-240 V AC, 50 Hz
Power consumption	
EA-D	45 W
EK-N, EOG-D, EOH-DN	47 W
SEG-N	48 W
Operating temperature	5 °C - 40 °C
Dimensions	380 (W) x 93 (H) x 343 (D) mm
Weight	4.7 kg

Standard accessories

AC cord	1
Antenna cable	1
21 pin AV cable	1 (SEG-N only)
Remote control unit	1
Batteries for remote control	2 (Except EOH-DN [Y1])
AC plug adaptor (ECP-L01BK-R5)	1 (EK-N only)
Operator's manual	1

0 dBs = 0.775 VRMS

∗ For improvement purposes, specifications and design are subject to change without notice.

∗ VIDEO PLUS+ AND PLUSCODE ARE TRADEMARKS APPLIED FOR BY GEMSTAR DEVELOPMENT CORP. VIDEO PLUS+ SYSTEM IS MANUFACTURED UNDER LICENCE FROM GEMSTAR DEVELOPMENT CORPORATION.

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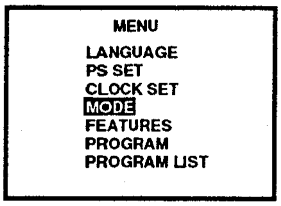
★ INFORMATION

MULTI FUNCTION MENU MODE

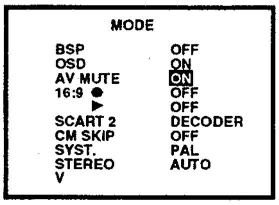
This is an on-screen display of the various modes you can programme via the TV screen.

TV SCREEN



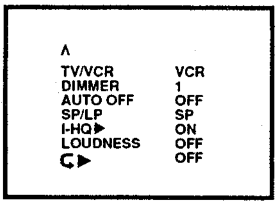
MENU
LANGUAGE
PS SET
CLOCK SET
MODE
FEATURES
PROGRAM
PROGRAM LIST

LANGUAGE : To select a language for the on-screen displays.
PS SET : To preset or cancel TV stations.
CLOCK SET : To set the clock and AUTO ADJUST TV station.
MODE : To set BSP (blank skip play ON/OFF), OSD (on screen display ON/OFF), AV MUTE (ON/OFF), 16:9 (REC ON/OFF, PB ON/OFF), SCART2 (DECODER/AV2), CM SKIP (30/60/150/OFF), SYST. (colour system PAL/MESECAM/NTSC →PAL/NTSC4.43), STEREO (MONO/AUTO), TV/VCR, DIMMER (FLD brightness 1,2,3), AUTO OFF (auto power off), SP/LP, I-HQ (ON/OFF), LOUDNESS (ON/OFF), ↻▶ (repeat ON/OFF)



MODE

BSP	OFF
OSD	ON
AV MUTE	ON
16:9 ●	OFF
▶	OFF
SCART 2	DECODER
CM SKIP	OFF
SYST.	PAL
STEREO	AUTO
V	



Λ	
TV/VCR	VCR
DIMMER	1
AUTO OFF	OFF
SP/LP	SP
I-HQ▶	ON
LOUDNESS	OFF
↻▶	OFF

FEATURES : To perform ↻0 (return to counter zoro), BLANK (blank search), INTRO (intro scan) or T. TUNING (tape tuning) functions.
PROGRAM : To set manual timer recording.
PROGRAM LIST : To review the times, dates or cancel programs that you have entered for timer recording.

If necessary, refer to the respective sections in the operator's manual for detailed information.

※ Some modes are not available on certain models.

1. Press the "MENU" button on the remote control unit. The menu list screen will be displayed on the TV screen.
2. Select the desired menu with the "⋀" or "⋁" button.
3. Press the "OK" button. The selected menu screen will be displayed on the TV screen.
4. Select the desired mode (or function) with the "⋁" or "⋀" button. The number of the modes (or functions) depends on the sort of the menu.
5. Set the each mode (or function) by pressing the "⋁" or "⋀" button and ">" or "<" button.
6. Press the "OK" button. The selected menu screen will be disappeared few seconds after the "OK" button is pressed. This means the setting has been completed correctly.

MANUAL TRACKING/PICTURE/STABILITY ADJUSTMENT

Using the remote control, the VCR can be adjusted for tracking and picture sharpness anytime during the playback mode.

- Manual tracking control
  Press the "<" or ">" button repeatedly until the picture is clear. During manual tracking adjustment, the tracking position is shown on the TV screen, and disappears automatically after adjustment has been completed. Use this function when performing the A/C HEAD phase adjustment.
- Picture sharpness control
  Press the "⋀" button repeatedly to sharpen the picture or press the "⋁" button to soften the picture.
- Stability adjustment

1) To correct picture shake during the slow motion or still mode:
   Press the "⋀" or "⋁" button repeatedly until the picture shake is corrected.
2) To correct tracking during the still mode:
   Press the "<" or ">" button repeatedly until the picture is clear.

ERROR ANNOUNCEMENT

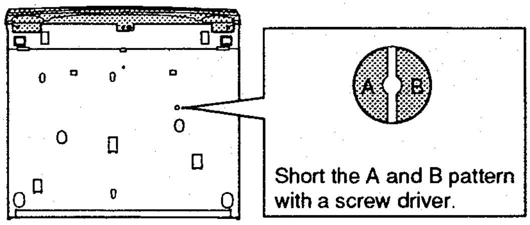
When a malfunction occurs, the following error indicators appear on the FL display to indicate the problem when the power is turned off.

Err 1 : AL power supply has short circuited.
Err 2 : The loading motor has stopped.
(When the mechanism position detect switch is not able to read the specified code, that is to say not able to reach the specified position within the specified time.)
Err 3 : The drum motor has stopped.
(When the drum motor does not rotate due to condensation, etc.)
Err 4 : The capstan motor has stopped.

PRESETS IN THE TEST MODE

1) Engaging the "TEST MODE"

To set the VCR to the test mode, firstly short the reset circuit pattern located on the bottom as shown below, with a flat head screw driver (This will ground the reset pin of the system control MI-COM). Next, plug in the AC power cord while pressing and holding both the "STANDBY/ON" and "STOP/EJECT" buttons (on the FRONT PANEL) at the same time.



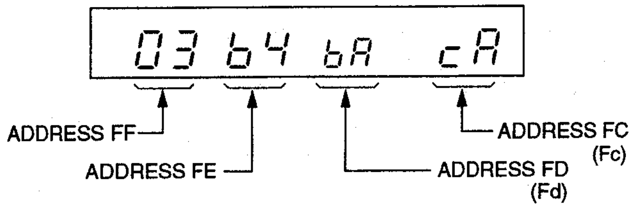
Short the A and B pattern with a screw driver.

Short the reset circuit pattern to disengage the "TEST MODE". (The test mode is not disengaged, even if the AC power cord is disconnected, without shorting the reset circuit.

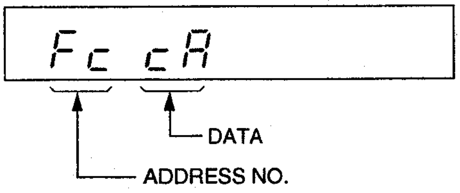
NOTE: Once the system control MI-COM is reset, clock and program data will be cancelled.

2) Model code preset

1. Engage the "test mode". (Never turn the power on.) The model code will be displayed in the FL display in 8 digit form.



2. While pressing both the "FF" and "RWD" buttons, reset the system control MI-COM and keep holding the "FF" and "RWD" buttons until the address number (typically, Fc or Fb) appears.
   The address number will be shown in 2 digits in the hours display of the FL display and its data will be shown in 2 digits in the minutes display.



3. Select address "Fc" by pressing the "FF" or "FWD" button if the address "Fc" is not appeared.
4. Choose the data in the address Fc column, that corresponds to the model number you are working on, from the following list. Set the chosen data value by pressing the "STOP/EJECT" or "PLAY" button.

MODEL	MODEL CODE	ADDRESS			
		Fc	Fd	FE	FF
VS-G2DPL EA-D	0191A94A	4A	A9	91	01
VS-G2DPL EK-N	01b0bA4A	4A	bA	b0	01
VS-G2DPL EOG-D	03bcb2cA	cA	b2	bc	03
VS-G2DPL EOH-DN	03b4bAcA	cA	bA	b4	03
VS-G2DPL SEG-N	03bcbAcA	cA	bA	bc	03

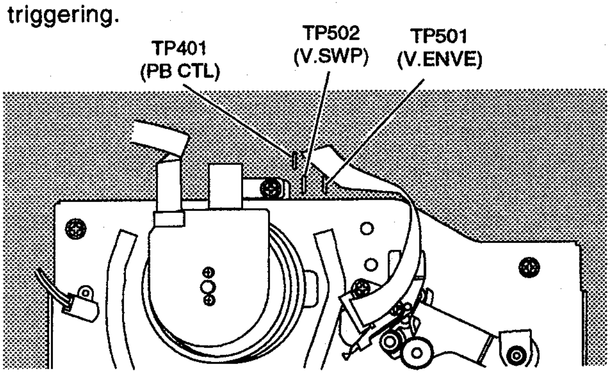
(On the FL display, B, C and D are indicated with small letters.)

5. Memorize the data into the EEP ROM IC by pressing the "REC" button.
6. The address "Fd" and its data will be shown in the FL display approx 2 seconds later automatically. Repeat the presetting (steps 4 to 5) for addresses "Fd", "FE" and "FF" in the same manner as address "Fc".
7. Peset the system control MI-COM to disengage the model code preset mode.

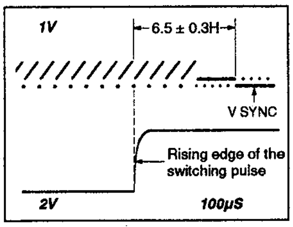
NOTE : This model code preset is absolutely necessary when the IC406 (EEP-ROM) on the MAIN PCB is replaced.

3) Video switching point preset

1. Engage the "test mode" and press the "POWER" button.
2. Connect CH-1 of an oscilloscope to VIDEO OUT and CH-2 to the TP502 (V-SWP) on the MAIN PCB for triggering.



3. Play back the reference tape TF-530RFS (Part No. : AT-751775). Check the channel display of the FL display so that "1F" (center position in the tracking range) is indicated at this point. If not indicated, press the "<" or ">" button on the remote control until "1F" is indicated.
4. Press the "REC" button during playback.
5. Confirm that the switching point is positioned 6.5 ± 0.3 H before the left edge of the V-sync as shown.



NOTE:

a) Make sure that the A/C head phase adjustment has been adjusted correctly before making video switching point preset. (Refer to step 4-3)
b) This switching point preset is absolutely necessary after the folllowing replacements.

- When the video head Assy is replaced.
- When the DRUM MOTOR PCB is replaced.
- When the SERVO/SYSCON MI-COM or EEP ROM IC (IC406) on the MAIN PCB is replaced.

4) Memorization of the reference RF envelope detect voltage (I-HQ)

For correct operation of the I-HQ tape tuning system, memorization of the reference RF envelope detect voltage is absolutely necessary. When the VIDEO HEAD Assy or EEP ROM IC in the MAIN PCB is replaced for any reason, memorize the reference RF envelope detect voltage according to the following procedure.

1. Engage the test mode.
2. Turn the VCR power ON.
3. Set the tape speed to "LP mode".
4. Insert the I-HQ test tape "TF-556AT" (AT-751822J) and then perform tape tuning by pressing both the "I-HQ" and "REC" buttons simultenuously.
5. Make a recording on the I-HQ test tape for more than 1 minute and then rewind it to the point where the recording was started.

6. Play back the tape. Reference RF envelope detect voltage data in the memory is displayed in 2 digits in the minutes display part of the FL display and the present envelope detect voltage data is displayed in 2 digits in the seconds display part (the data is displayed in hexadecimal numbers).
7. After the auto tracking has been activated, press the "CANCEL" button on the remote control unit. So present RF envelope detect voltage data will be transferred to the minutes part's 2 digits and memorized in the EEP ROM IC.
8. Next, set the tape speed to "SP mode" and repeat the steps 4 to 7.
9. Terminate the test mode.

5) Other facilities in the test mode

1. Tracking position display

In the "SP play" mode, tracking position data can be displayed on the FL display. Data is displayed in 64 steps in hexadecimal numbers from "00" to "3F" in the OTR's minute stop time part on the FL display. (Tracking position data appears in the channel display part on the G700 series models.) Pressing the "TV/VCR" button on the remote control unit during playback directly sets the tracking to the maximum "3F" position and pressing the "COUNTER RESET" button sets it to the minimum "00" position. Pressing the "PLAY" button during playback sets tracking to the center position "1F" automatically. If "1F" does not appear even when the "PLAY" button is pressed, keep pressing the "<" or ">" cursor button on the remote control unit until "1F" is indicated and then press the "OK" button to memorize the position.

2. Suspension of the tape protection system

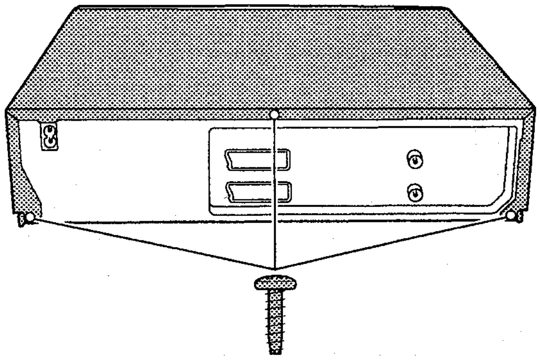
When the VCR is not in the "test mode", the "REC PAUSE" mode will be released after 30 minutes in order to protect the tape. The "STILL" mode will also be released after 5 minutes. During the "test mode", however this tape protection system will not operate.

※ Video head rotation will stop 5 min. after the "REC PAUSE" mode has been engaged even during the test mode.

I. DISASSEMBLY

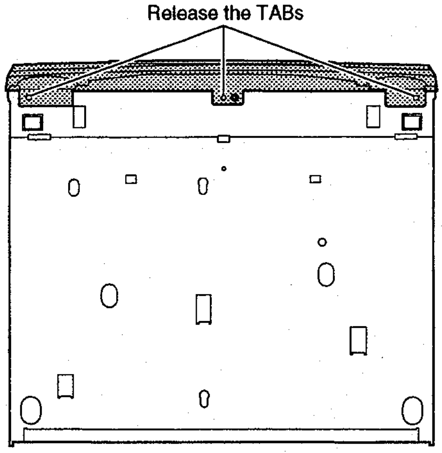
In case of trouble, etc., necessitating dismantling, please dismantle in the order shown in the illustrations.
Reassemble in the reverse order.
When reattaching the FRONT PANEL, hold the cassette loading slot door in the upright (open) position.

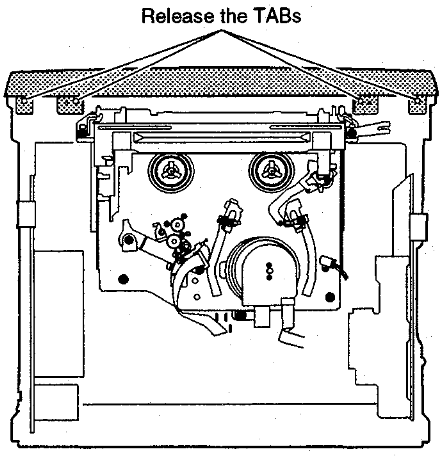
1. Removal of UPPER COVER



Lift the back part of the UPPER COVER up to remove.

2. Removal of FRONT PANEL





II. PRINCIPAL PARTS LOCATION

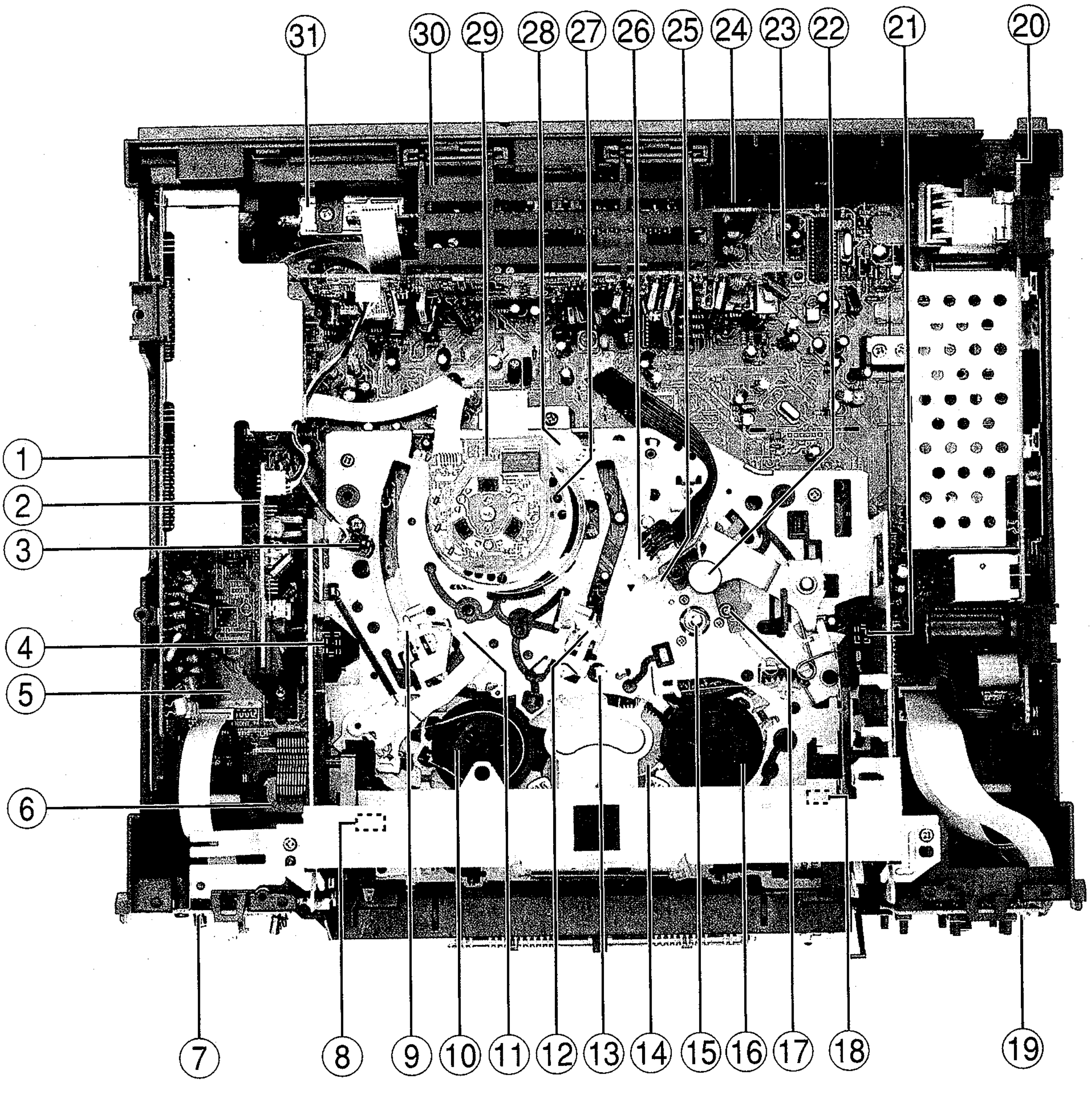


Fig. 2-1 Top view

1. DPL/AMP PCB
2. VIF-HiFi PCB (except SEG-N)
   VIF-SEG PCB (SEG-N only)
3. FULL TRACK ERASE HEAD
4. TAPE END SENSOR
5. MAIN PCB
6. SENSOR PCB
7. FRONT PCB
8. REC SAFETY SWITCH
9. GUIDE LEADER (L) BLOCK
10. REEL DISK (S)
11. TENSION ARM
12. GUIDE LEADER (R) BLOCK
13. SENSOR LED
14. IDLER ARM PART
15. CAPSTAN MOTOR
16. REEL DISK (T)
17. REVIEW ARM
18. S-VHS TAPE DETECT SWITCH
19. OPERATION PCB
20. POWER PCB
21. TAPE START SENSOR
22. PINCH ROLLER ARM
23. D-NICAM PCB (EK-N/EOH-DN/SEG-N only)
24. IN-OUT PCB (except EA-D)
    EA-OUT PCB (EA-D only)
25. TAKE UP TAPE GUIDE
26. A/C (AUDIO/CONTROL/SIDE TRACK ERASE) HEAD
27. ROTARY VIDEO HEAD BLOCK
28. HEAD CLEANER BLOCK
29. DRUM MOTOR PCB
30. PCB HOLDER
31. RF CONVERTER/BOOSTER UNIT

※The photograph on this page is of model VS-G2DPL SEG-N.

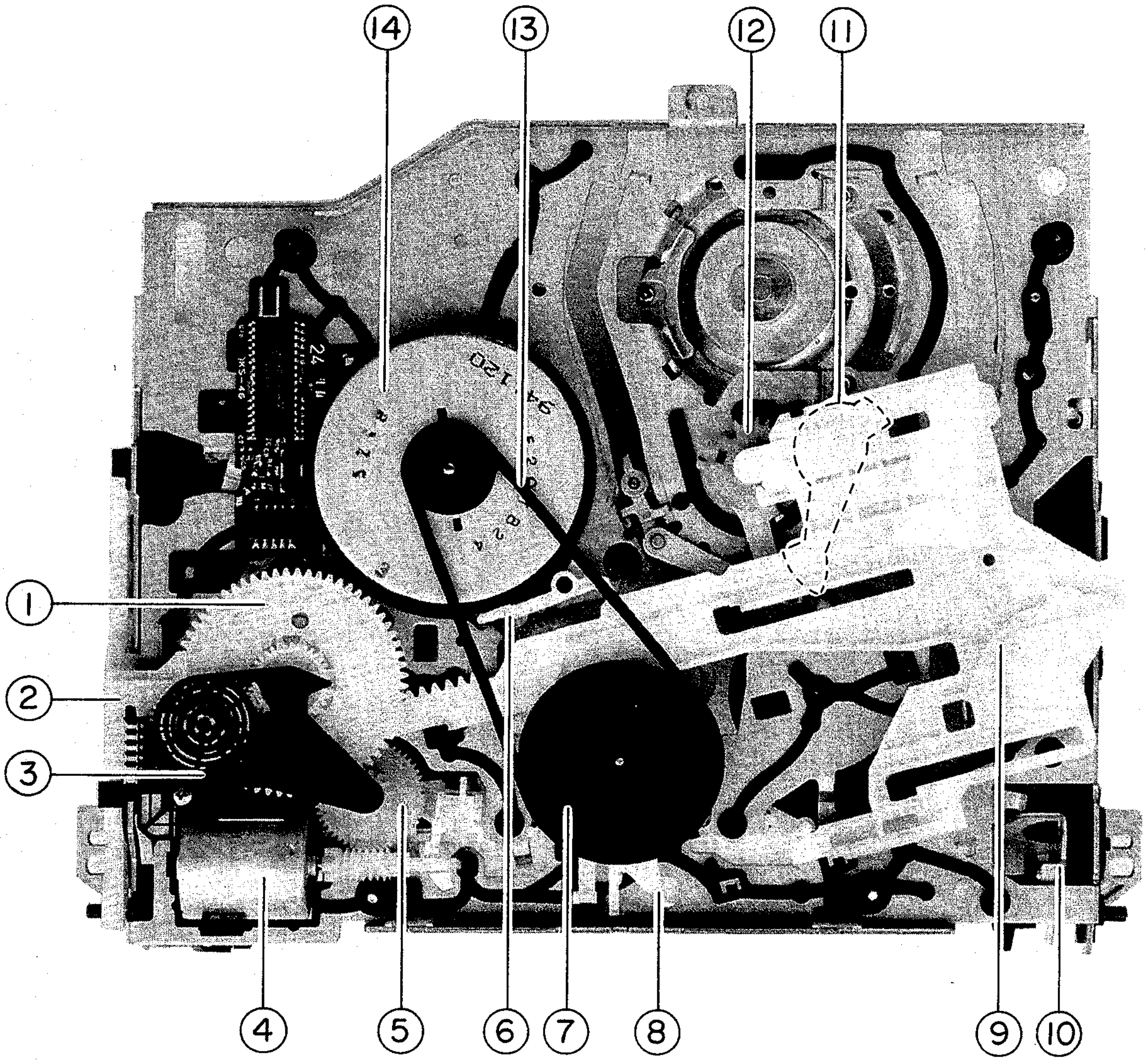


Fig. 2-2 Bottom view of the mechanism block

1. CENTER CAM GEAR
2. LOADING SLIDE
3. MODE DETECT SWITCH
4. LOADING MOTOR
5. WHEEL GEAR
6. SLOW ARM BRAKE
7. CLUTCH DISK PART
8. COUPLING ARM
9. MAIN SLIDER
10. LOADING ARM BLOCK
11. TOGGLE LEVER (L)
12. TOGGLE GEAR (R)
13. CAPSTAN BELT
14. CAPSTAN MOTOR BLOCK

III. DISASSEMBLY OF THE MAIN COMPONENTS

3-1. REMOVAL OF THE MECHANISM BLOCK

NOTE: Some parts in the mechanism block require complete removal of the mechanism block from the chassis when performing servicing.
Set the loading mechanism to the "EJECT" position by pressing the "EJECT" button, then disconnect the AC power plug from the AC socket before proceeding. This sets the loading mechanism to the "reference position".

1) Disconnect the flat cable on the DRUM MOTOR PCB as shown in Fig. 3-1.

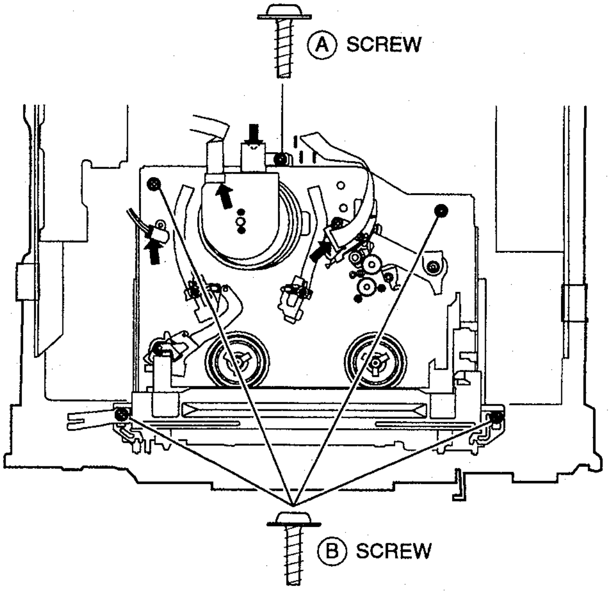


Fig. 3-1

2) Disconnect the connectors on the FULL TRACK ERASE HEAD and A/C HEAD.
3) Remove the Ⓐ screw and shield cover then disconnect the flat cable carefully.
4) Remove the four Ⓑ retaining screws and remove the MECHANISM BLOCK.

3-2. REMOVAL OF THE EJECTOR BLOCK

3-2-1. Removal of the CASSETTE HOLDER BLOCK

1) Remove the UPPER CHASSIS by pushing the Ⓐ part in the direction of the arrow while pressing the STOPPER, as shown in Fig. 3-2.

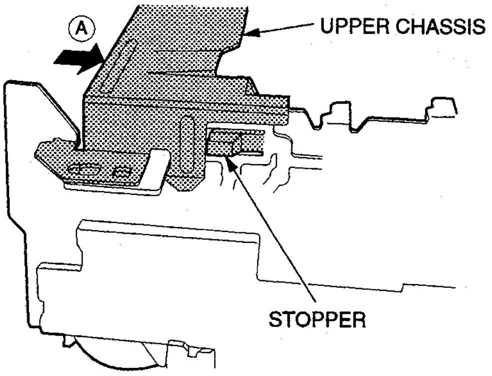


Fig. 3-2

2) Disengage the right end of the CASSETTE HOLDER BLOCK from its rail while pulling the STOPPER outwards.

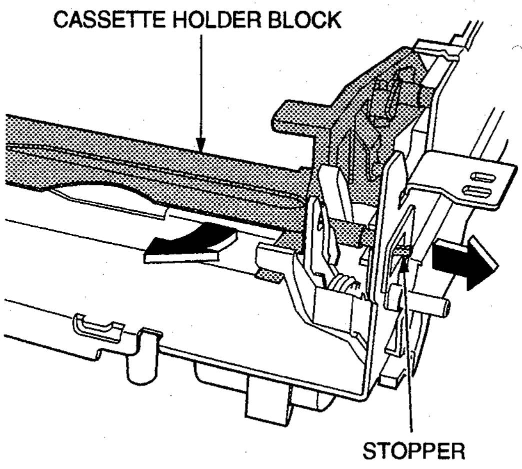


Fig. 3-3

3) Carefully pull the CASSETTE HOLDER BLOCK in the upper right direction and remove it from the mechanism block.

3-2-2. Removal of the LOADING ARM BLOCK

1) Connect a 6 V battery to the LOADING MOTOR or turning the LOADING MOTOR shaft manually, position the LOADING ARM to about 30° from vertical, as shown in Fig. 3-5.

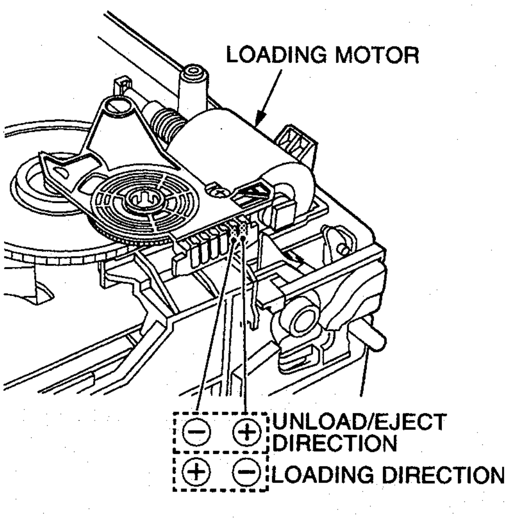


Fig. 3-4

NOTE: To avoid adding excessive stress to the mechanism, the voltage should not exceed 6V when connecting a battery to the LOADING MOTOR.

2) While pulling the left side STOPPER outwards, pull out the left end of the LOADING ARM from the bracket and remove the LOADING ARM BLOCK from the mechanism as shown in Fig. 3-5.

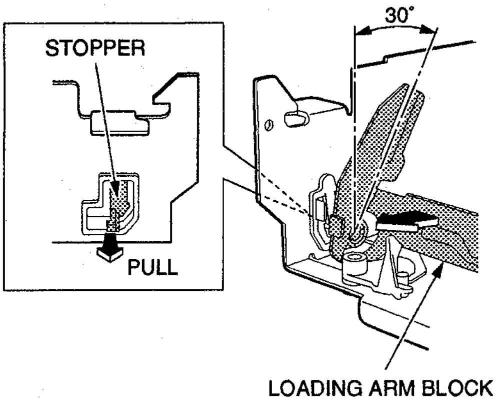

30°
STOPPER
PULL
LOADING ARM BLOCK

Fig. 3-5

3) Re-assemble in the reverse order for installation. Re-position the LOADING ARM angle to the reference (EJECT) position before attaching the CASSETTE HOLDER BLOCK.

3-3. DISASSEMBLY OF THE LOADING DRIVE BLOCK

3-3-1. Removal of the LOADING MOTOR and MODE DETECT SWITCH

1) Remove the retaining screw then turn the LOADING MOTOR BLOCK in the direction of the arrow while releasing the Ⓐ and Ⓑ hooks, as shown in Fig. 3-6.

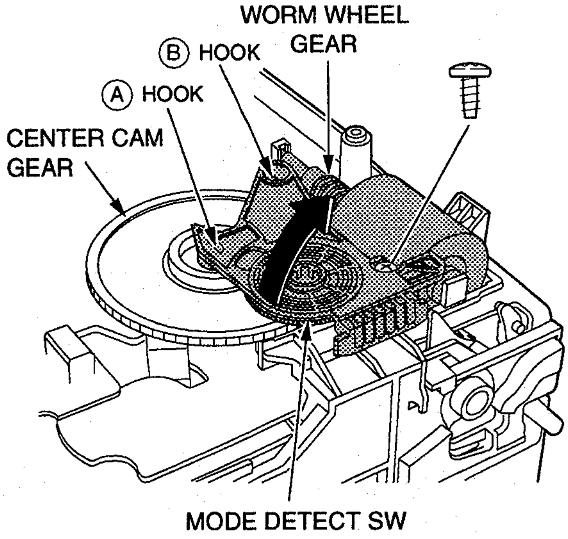

WORM WHEEL GEAR
Ⓑ HOOK
Ⓐ HOOK
CENTER CAM GEAR
MODE DETECT SW

Fig. 3-6

2) Press the lower side of the LOADING MOTOR in the direction of the arrow and then remove the LOADING MOTOR BLOCK (shown in Fig. 3-7) taking care not to damage the Ⓐ part.

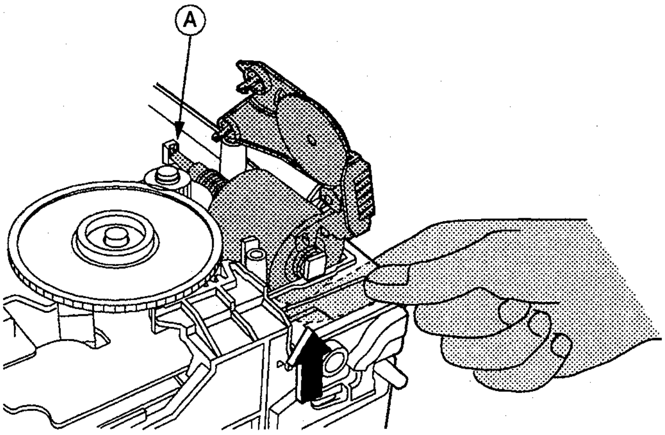


Fig. 3-7

3-3-2. Removal of the MAIN SLIDER

1) Remove the LOADING MOTOR BLOCK and CENTER CAM GEAR.
2) Remove the CAPSTAN BELT and CLUTCH DISK PART (carefully release the stopper on the shaft when removing).

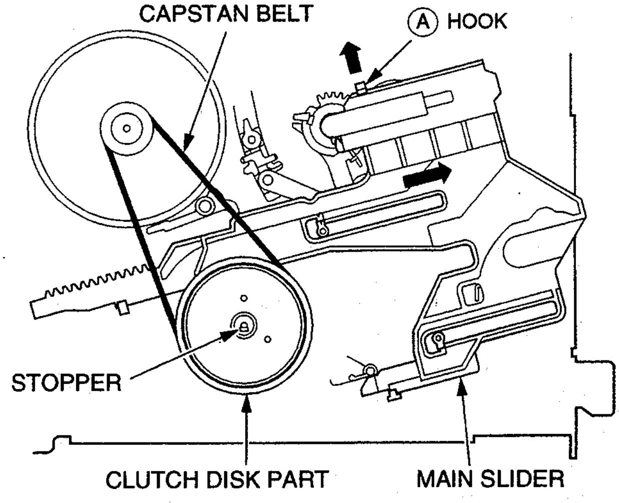

CAPSTAN BELT
Ⓐ HOOK
STOPPER
CLUTCH DISK PART
MAIN SLIDER

Fig. 3-8

3) Slide the MAIN SLIDER in the direction of the arrow and pull out the MAIN SLIDER while carefully releasing the Ⓐ hook, as shown in Fig. 3-8.

3-3-3. Removal of the TOGGLE GEAR (R) and TOGGLE LEVER (L)

1) First disengage the TOGGLE LEVER (L)'s lever from the GUIDE LEADER (L)'s pin then release the stopper on the TOGGLE LEVER (L), as shown in Fig. 3-9.

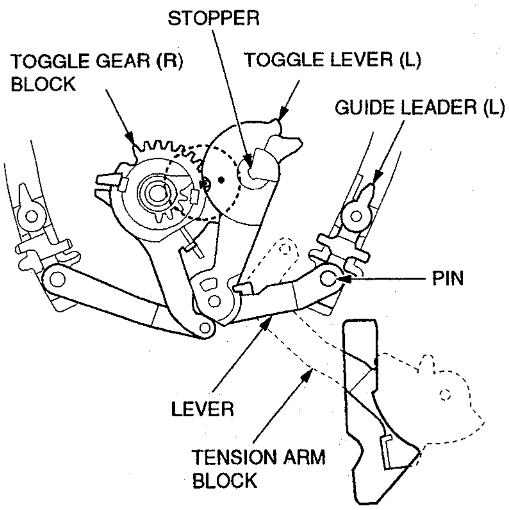

STOPPER
TOGGLE GEAR (R) BLOCK
TOGGLE LEVER (L)
GUIDE LEADER (L)
PIN
LEVER
TENSION ARM BLOCK

Fig. 3-9

2) Remove the TOGGLE LEVER (L) and TOGGLE GEAR (R).

3-4. REASSEMBLY OF THE LOADING DRIVE BLOCK

3-4-1. Position of the TOGGLE GEAR (R) and TOGGLE LEVER (L)

1) With your fingers, set both the GUIDE LEADERs (R) and (L) and TOGGLE GEAR (R) and TOGGLE LEVER (L) to the unloaded position. Align the mark on the TOGGLE LEVER (L) and ► mark on the TOGGLE GEAR (R), as shown in Fig. 3-9.

NOTE: Before positioning the TOGGLE LEVER (L), confirm that the TENSION ARM is positioned as shown by the dotted line in Fig. 3-9.

3-4-2. Installation of the MAIN SLIDER

1) Position the TENSION ARM LEVER and SUPPLY BRAKE's pin as shown by the dotted line respectively and then slide the MAIN SLIDER a little to the left along the three guides, as shown in Fig. 3-10.

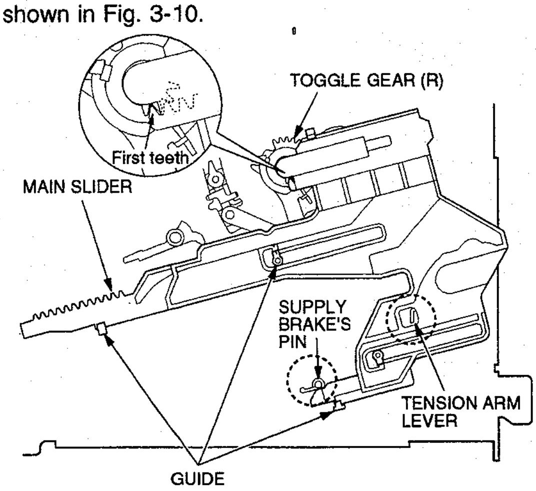

TOGGLE GEAR (R)
First teeth
MAIN SLIDER
SUPPLY BRAKE'S PIN
TENSION ARM LEVER
GUIDE

Fig. 3-10

2) Align the TOGGLE GEAR (R) timing so that the first teeth of the MAIN SLIDER align between the first and second tooth of the TOGGLE GEAR (R). Engage the HOOK and the MAIN SLIDER by pressing the MAIN SLIDER (near the HOOK) downwards.
3) Attach the CLUTCH DISK PART and CAPSTAN BELT.

3-4-3. Installation of the CENTER CAM GEAR

1) Fully slide the MAIN SLIDER to the right (unloaded position).

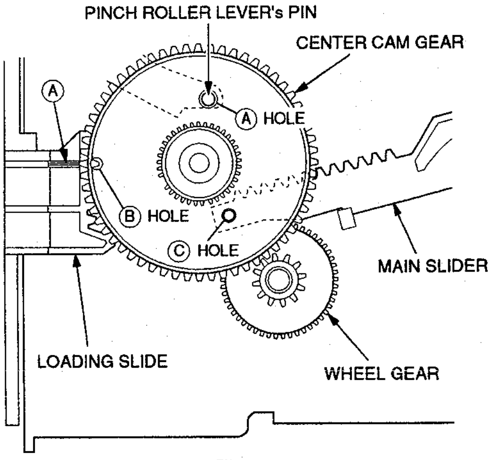

PINCH ROLLER LEVER's PIN
CENTER CAM GEAR
Ⓐ
Ⓐ HOLE
Ⓑ HOLE
Ⓒ HOLE
MAIN SLIDER
LOADING SLIDE
WHEEL GEAR

Fig. 3-11

2) Attach the WHEEL GEAR.
3) Attach the CENTER CAM GEAR so that the pin on the PINCH ROLLER LEVER is visible through the Ⓐ hole on the CENTER CAM GEAR as well as the LOADING SLIDE's Ⓐ part aligns with the Ⓑ hole on the CENTER CAM GEAR as shown in Fig. 3-11.

3-4-4. Installation of the LOADING MOTOR and MODE DETECT SWITCH

1) Carefully insert the LOADING MOTOR (with the MODE DETECT SWITCH attached) to the motor holder on the chassis and turn the LOADING MOTOR in the opposite direction of the arrow, shown in Fig. 3-6).
2) Align the hollow teeth of the CENTER CAM GEAR with the trapezoidally shaped teeth of the MODE DETECT SWITCH as shown in Fig. 3-12 then tighten the retaining screw.

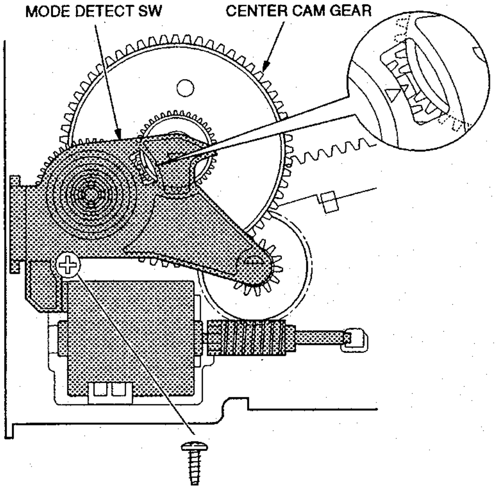

MODE DETECT SW
CENTER CAM GEAR

Fig. 3-12

3-5. REPLACEMENT OF THE CAPSTAN MOTOR BLOCK

1) Remove the three retaining screws on the top. Next, turn the mechanism block upside down then remove the CAPSTAN BELT.
2) Turn the CAPSTAN MOTOR BLOCK in the clockwise direction little and remove it from the chassis as shown in Fig. 3-13.

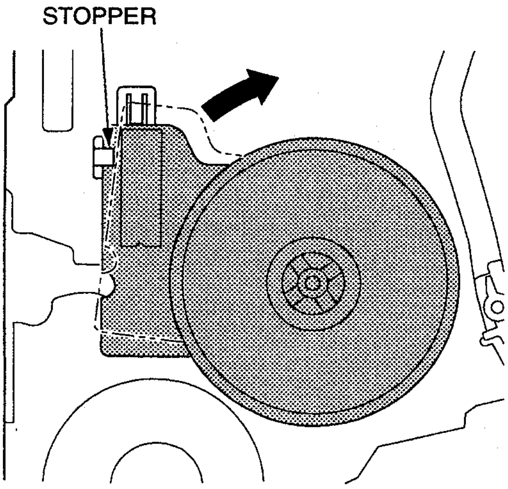


Fig. 3-13

3-6. DRUM MOTOR PCB REPLACEMENT

1) Remove the two retaining screws on the DRUM MOTOR PCB, as shown in Fig. 3-14.

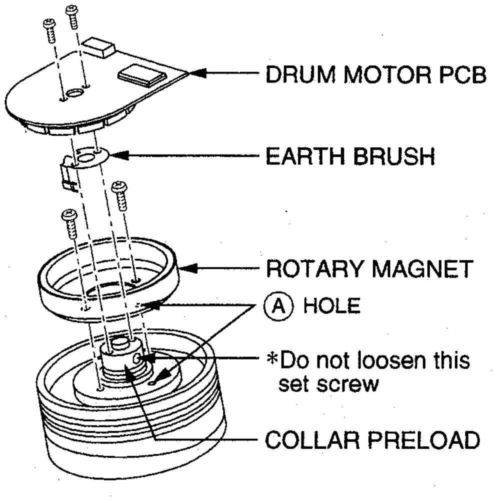


Fig. 3-14

2) If removal of the ROTARY MAGNET is necessary, first remove the EARTH BRUSH then remove the two ROTARY MAGNET retaining screws.
3) When reattaching the ROTARY MAGNET onto the UPPER DRUM of the VIDEO HEAD BLOCK, the Ⓐ hole must align with the Ⓐ hole on the UPPER DRUM.
4) Perform PB switching point adjustment (INFORMATION, PRESETS IN THE TEST MODE step 3)) after replacement of the ROTARY MAGNET or DRUM MOTOR PCB.

3-7. VIDEO HEAD BLOCK REPLACEMENT

3-7-1. VIDEO HEAD BLOCK replacement

※ Can not be replaced Upper Drum itself, replace whole Video Head Block.

1) Remove the DRUM MOTOR PCB, EARTH BRUSH and ROTARY MAGNET (refer to step 3-6).
2) Remove the three retaining screws on the bottom.

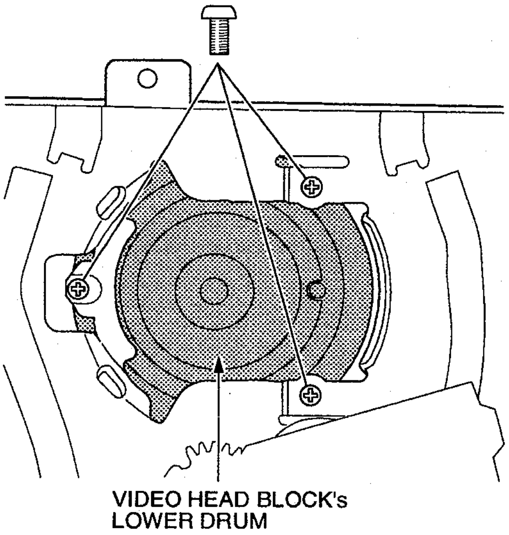


Fig. 3-15

NOTE:

1) Because the video head tips are fragile, take special care when handling the VIDEO HEAD BLOCK.
2) Height precision is required for proper performance. the following points should be noted when replacing the VIDEO HEAD BLOCK.
   a) Do not loosen the set screws on the COLLAR PRELOAD (refer to Fig. 3-14).
   b) Before replacement, use alcohol to clean both surfaces where the LOWER DRUM touches the chassis.
   c) Tighten the three retaining screws alternately and gradually.

3-7-2. After replacement

After replacement, the following adjustments are necessary for proper performance.

1) GUIDE LEADER height adjustment (MECHANICAL ADJUSTMENT 4-2-5).
2) CONTROL HEAD phase adjustment (MECHANICAL ADJUSTMENT 4-3).
3) PB switching point adjustment (INFORMATION, PRESETS IN THE TEST MODE step 3)).

IV. MECHANICAL ADJUSTMENT

4-1. BACK TENSION CONFIRMATION

1) Using a video cassette tape which you no longer need, remove both tape reels and the tape protection cover. Next, cover the video cassette's left and right detection holes with black adhesive tape.
2) Engage the playback mode using the tapeless cassette.
3) Confirm the distance between the three marks (line) on the TENSION ARM and the reference BOSS on the MECHA. CHASSIS so that the center of the reference BOSS aligns with the center line on the TENSION ARM, as shown in Fig. 4-1.
4) If the result is not satisfactory, eject the cassette tape and adjust the back tension with a flat head screwdriver, as shown in Fig. 4-1, until a satisfactory result is achieved.

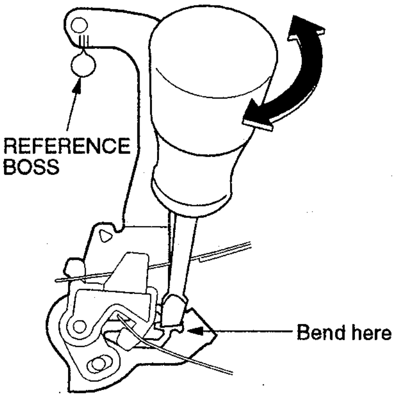


Fig. 4-1

4-2. TAPE TRANSPORT ADJUSTMENTS

NOTE: The following adjustments are required only when an irregularity is found, since these adjustments are precisely set at the factory.

4-2-1. Tape curl adjustment at the TAKE UP TAPE GUIDE

1) Play back a recorded tape which is no longer needed.
2) Turn the Ⓐ screw on the A/C HEAD BLOCK until the edge of the tape barely touches the lower part of the TAKE UP TAPE GUIDE, without any curl or wrinkle. (Turning the Ⓐ screw in the clockwise direction moves the tape downwards and counterclockwise direction moves the tape upwards.

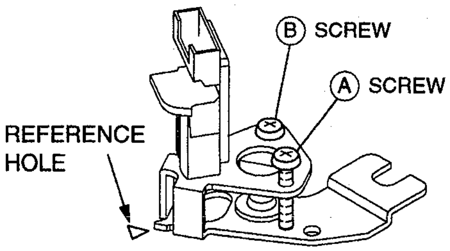


Fig. 4-2

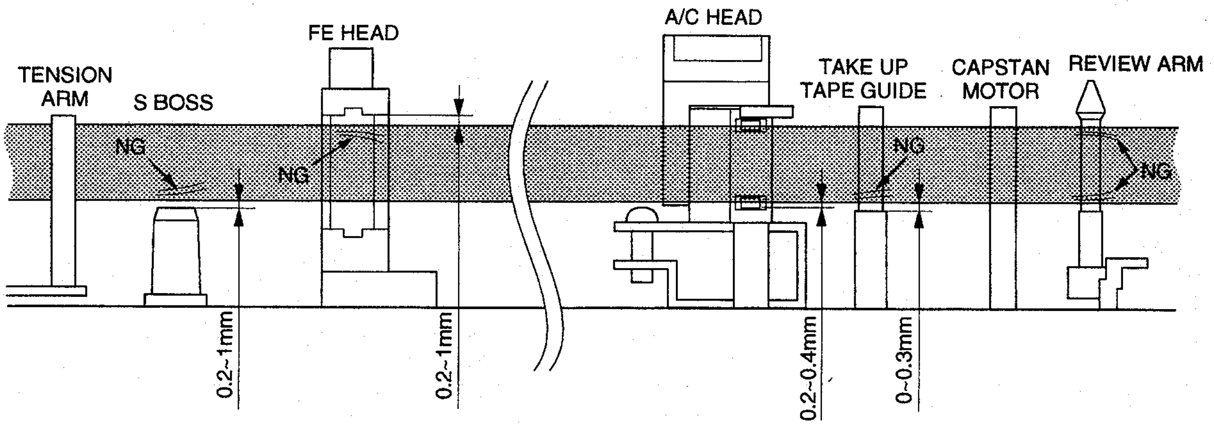


Fig. 4-3

3) Connect an oscilloscope to the AUDIO OUT terminal and play back the test tape TF-526HH (part No.: AT-751788).
4) Confirm that the output level is between 30 ~ 200 mVp-p (optimum value is 100 mVp-p). If the result is not satisfactory, finely adjust the Ⓐ and Ⓑ screws alternately until a satisfactory result is achieved.

IMPORTANT:

1) In order to prevent the A/C HEAD BASE from being distorted, and to keep the A/C HEAD straight up, always turn the head azimuth adjustment Ⓑ screw equally in the opposite direction to the Ⓐ screw.
2) Never turn the Ⓐ screw in the clockwise direction too much as it will cause the A/C HEAD BASE to bend.
3) Once the Ⓐ screw is adjusted, A/C HEAD azimuth adjustment is required for proper performance. (Refer to 4-2-4, A/C HEAD azimuth adjustment)
4) To make the adjustment easier, prepare a cassette tape with the protection cover removed.

4-2-2. Tape curl adjustment at the S-BOSS or FULL TRACK ERASE HEAD

1) Play back the protection cover-less cassette tape which you prepared.
2) Confirm that the edge of the tape is not touching the S-BOSS or upper flange of the FULL TRACK ERASE HEAD, as shown in Fig. 4-3. If the result is not satisfactory, bend the neck part of the TENSION ARM in the Ⓐ or Ⓑ direction slightly until a satisfactory result is achieved.

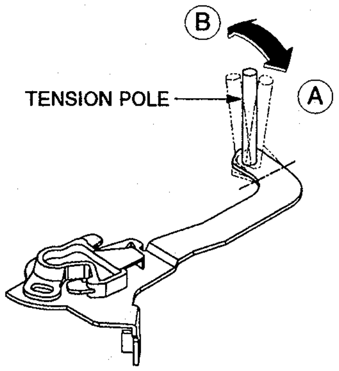


Fig. 4-4

3) Set the VCR to the "CUE" or "REVIEW" mode and confirm that the edge of the tape is not touching the S-BOSS or upper flange of the FULL TRACK ERASE HEAD. If the result is not satisfactory, readjust the TENSION ARM again.

4-2-3. CUE/REVIEW check

1) Play back the end of an E-240 tape and set the unit to the REVIEW mode by pressing the REW button.

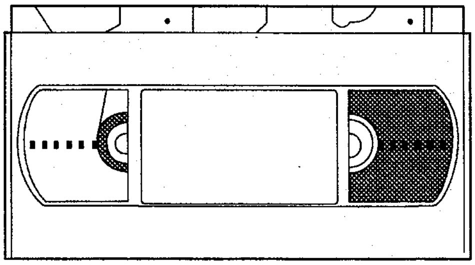


Fig. 4-5

2) After 3 seconds, confirm there is no curl or wrinkle among the TAKE UP TAPE GUIDE, CAPSTAN SHAFT and REVIEW ARM. If the result is not satisfactory, readjust the Ⓐ and Ⓑ screws until a satisfactory result is achieved.
3) Play back the beginning of an E-240 tape and this time set the unit to the CUE mode by pressing the F.FWD button.

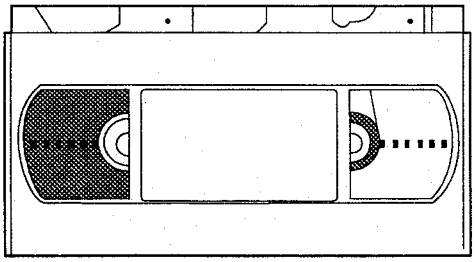
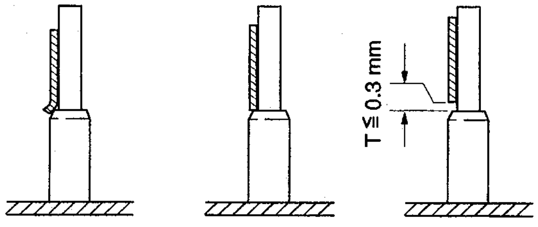


Fig. 4-6

4) Confirm there is no curl or wrinkle among the TAKE UP TAPE GUIDE, CAPSTAN SHAFT and REVIEW ARM. If curl or wrinkle occurs, slightly turn the Ⓐ screw until it disappears.
5) Set the unit to the REVIEW mode again. Then confirm that there is no curl or wrinkle near the TAKE UP TAPE GUIDE. (A small gap may appear after this adjustment, but this is allowable.)



(a) INCORRECT (b) CORRECT (c) CORRECT

Fig. 4-7

NOTE:

1) If the result is not satisfactory, repeat the adjustment until a satisfactory result is obtained.
2) Always play an undamaged tape to obtain satisfactory adjustment.
3) Because an E-240 tape can be damaged easily due to its thinness, pre-adjustment with an E-180 tape is recommendeed.

4-2-4. A/C HEAD azimuth adjustment

1) Connect an AC milli-voltmeter or an oscilloscope to the AUDIO OUT terminal on the rear panel.
2) Play back the reference tape TF-530RFS (Part No.: AT-751775).
3) Press the "AUDIO MONITOR" button on the remote control repeatedly and choose the linear (normal) audio playback.
4) Adjust the Ⓑ screw to obtain the maximum audio output (Refer to Fig. 4-2).

4-2-5. GUIDE LEADER height adjustment

1) Slightly loosen the set screw at the lower part of the GUIDE LEADER's (L) and (R) so that the GUIDE LEADER can be adjusted with reasonable tightness.

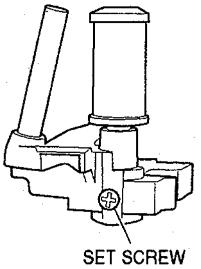


Fig. 4-8

2) Play back the reference tape TF-530RFS.
3) Connect an oscilloscope's CH-1 to the TP501 (V. ENVE) on the MAIN PCB and CH-2 to TP502 (V. SWP) for triggering. (Refer to "video switching point preset" on page 5 for location.)
4) Press the tracking button on the remote control to obtain the maximum RF envelope level.

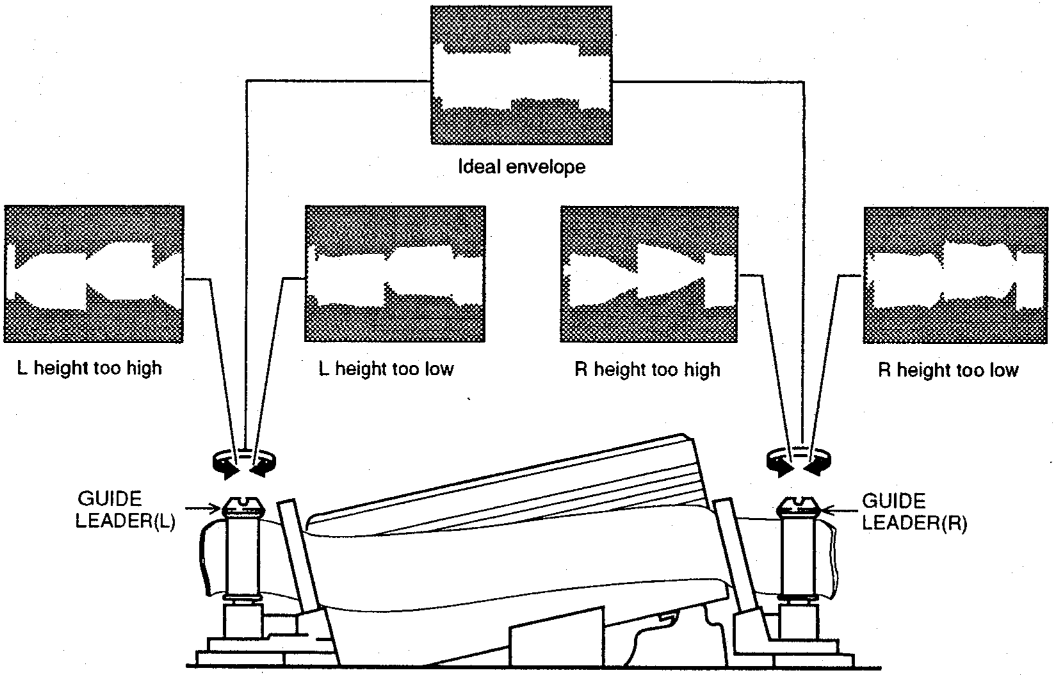


Fig. 4-9

5) Turn both the GUIDE LEADER's heads alternately with a flat head (—) screwdriver to obtain a flat RF envelope as the ideal envelope, as shown in Fig. 4-9.
6) After adjustment is completed, tighten the loading leader set screws.

4-3. A/C HEAD PHASE ADJUSTMENT

1) Connect an oscilloscope's CH-1 to the TP501 (V. ENVE) on the MAIN PCB and CH-2 to TP502 (V. SWP) for triggering. (Refer to "video switching point preset" on page 5 for location.)
2) Play back the reference tape TF-530RFS (Part No. : AT-751775).
3) Press the ">" or "<" TRACKING button on the remote control until the "X" mark can be seen in the center position of the tracking range on the TV screen as shown in Fig. 4-10.
4) Loosen the Ⓒ screw slightly so that the A/C HEAD BASE can be moved with reasonable tightness.
5) Insert a philips type screwdriver into the Ⓐ hole on the chassis through the A/C HEAD BASE's wane.
6) Move the A/C HEAD BASE by moving the screwdriver in the direction of the arrow, as shown in Fig. 4-11, to obtain the maximum RF output, then tighten the Ⓒ screw. Although there are a few points at which the RF output becomes maximum, the pointed head of the A/C HEAD BASE must be positioned as close to the reference hole as possible.
7) Eject the tape and then re-insert it and play it back again. Confirm that the RF output is maximum after the auto tracking control has been activated. Next, press the "<" or ">" button on the remote control alternately and confirm that the RF output is maximum at the center tracking position. If the result is not satisfactory, repeat steps 2) to 6). (This adjustment is very important as this affects the interchangeability of recorded tapes.)

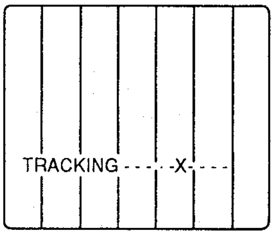


Fig. 4-10

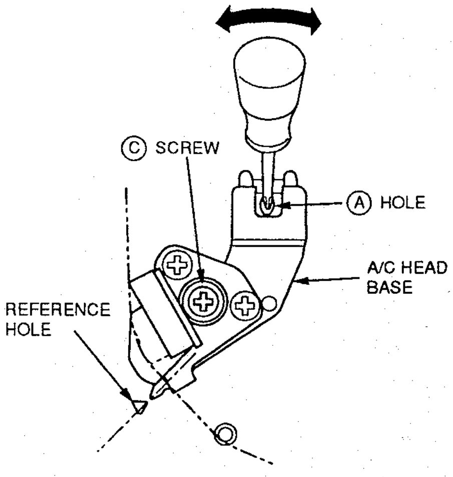


Fig. 4-11

V. PARTS LIST

ATTENTION

1. When placing an order for parts, be sure to list the Part No., Model No. and the description of each part. Otherwise, the non-delivery of the part or the delivery of a wrong part may result.
2. Please make sure that Part No. is correct when ordering. If not, a part different from the one you ordered may be delivered.
3. Since the parts shown in Parts List or Preliminary Service Manual may have been the subject of changes, please use this Parts List for all future reference.

HOW TO USE THIS PARTS LIST

1. This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
4. How to read the Parts List.

a) Mechanism Block

2. HEAD BASE BLOCK

Ref. No.	Part. No.	Description
1	BH-T2023A320A	HEAD BASE BLOCK
2	HP-H2206A010A	HEAD R/P PR4-8FU C
3	ZS-477876	PAN20x03STL CMT
4	ZS-536488	BID20x08STL CMT
5	ZG-402895	SP CS ANGLE ADJUST

SP (Service Parts) Classification

This number corresponds with the individual parts index number in the figure.

b) PC Board

2. MAIN PC BOARD

Ref. No.	Part. No.	Description
IC1	EI-324536	IC HD14049BP
IC2	EI-336801	IC MB8841-564M
C1A	EC-338399	C MMY V 223M 250AC [U,E,B,S]
C1B	EC-350949	C MMY V 223M 250DC [J]
C1C	EC-338397	C MMY V 223M 125AC [C,A]
X1	EI-318384	OSC X'TAL NC-18C

Symbols for primary destination

[A] : AAL (U.S.A) [S] : SAA (Australia)
[B] : BEAB (England) [U] : U/T (Universal Area)
[C] : CSA (Canada)
[E] : CEE (Europe) [V] : VDE (Germany)
[J] : JPN (Japan) [Y] : Custom

SP (Service Parts) Classification

These reference symbols correspond with component symbols in the Schematic Diagrams.

The available PC Board Blocks are listed separately.

5. When Part No. is known, Parts Index at end of Parts List can be used to locate where that part is shown in Parts List by its Reference No. listed at right of Part No.

WARNING

⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

AVERTISSEMENT

⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉDE L'APPAREIL, NE REMPLACER QUE DES PIÉCES RECOMMANDEES PAR LE FABRICANT.

1. RECOMMENDED SPARE PARTS

We suggest you to stock the following Recommended Spare Part items listed below since they can cover most of the routine service.

Ref. No.	Part No.	Description
1	BL-433561N2	ARM LOADING BLK
2	BL-433609N3	ARM PINCH BLK
3	BL-433538N2	ARM TENSION BLK
4	BM-433593N1	LOADING MOTOR PART
5	BM-433176N	MOTOR F2QTB24
6	BM-433198N	MOTOR F20EL60
7	⚠ BT-435200N	TRANS POW V1244-M
8	BV-433522N1	GUIDE LEADER(L)BLK
9	BV-433534N1	GUIDE LEADER(R)BLK
10	BV-433615N2	HOLDER CASSETTE BLK
11	BV-435474N	RF CONVERT.YAA21-1121G EA [EA]
12	BV-435423N	RF CONVERTER MDLP3E008A G/I/K [EK]
13	BV-429839N	RF CONVERTER YAA21-1045H G EO [EOH,EOG]
14	BV-429901N	RF CONVERTER YAA41-0081G SECAM [SEG]
15	BV-V1234D430K	TL DRUMBLK(SERVICE)NX-6SEG [SEG]
16	BV-V1234D430J	TL DRUMBLK(SERVICE)NX-6PAL [EXCEPT SEG]
17	ED-390011N	D LED GL451 INFRARED
18	ED-390012N	D LED GL4800 INFRARED
19	ED-435478N	D SCHOTTKY ERC81-004J10 S12
20	ED-435459N	D SCHOTTKY ERC84-009J11 S15
21	ED-418624N	D SCHOTTKY RK39LF-B2 S12
22	ED-428162N	D SCHOTTKY 1S30-E T26
23	ED-427506N	D SILI.ERA22-10 T26 1000/0.5A
24	ED-386031N	D SILICON C.MA110-TW TWT08E
25	ED-416930N	D SILICON C.MA77-TX TXT08E
26	ED-432744N	D SILICON C.MC2840-1 T1T08E
27	ED-307573N	D SILICON H 1SS131T-77 T26
28	ED-428420N	D SILICON RL103F-N02T05 200/1A
29	ED-435197N	D SILICON YG912S2
30	ED-403280N	D SILICON 1N4002N02 T05 100/1A
31	⚠ ED-418622N	D SILICON 1N4006N02 T05 800/1A
32	ED-427173N	D VARACTOR MA840-B(TA) T26
33	ED-432743N	D ZENER C.RD5.6MB2-T1 T1T08E
34	ED-387820J	D ZENER H HZS9A2L
35	ED-434522N	D ZENER H MTZJ10C T26
36	ED-425442N	D ZENER H MTZJ13A T26 [EOH,EOG]
37	ED-435259N	D ZENER H MTZJ13B T26
38	ED-425443N	D ZENER H MTZJ18A T26
39	ED-422420J	D ZENER H MTZJ20C T26
40	ED-422519N	D ZENER H MTZJ4.3B T26
41	ED-418820N	D ZENER H MTZJ5.1C T26
42	ED-428014N	D ZENER H MTZJ6.8A T26 [SEG]
43	ED-433962N	D ZENER H MTZJ7.5C T26
44	ED-427719N	D ZENER H MTZJ9.1A T26
45	EE-435224N	TV TUNER TELB1-016A [EK]
46	EE-435227N	TV TUNER TELE1-012A [EA]
47	EE-435225N	TV TUNER TELE4-045A [EOH,EOG]
48	EE-435226N	TV TUNER TELE4-049A [SEG]
49	⚠ EF-428341N	FUSE 215 T 250V 2.00A
50	EI-389644N	IC BA403 [EA,EOG]
51	EI-385995N	IC BA7755A
52	EI-435451N	IC BU4053BCF-T1 FPT1T32P [EOH,SEG]
53	EI-435218N	IC LA4905
54	EI-435229N	IC LA70011M-TRM FPR T24E
55	EI-433037N	IC LA7256
56	EI-432899N	IC LA7337 [SEG]
57	EI-432781N	IC LA7447BM
58	EI-432759N	IC LA7577N
59	EI-390053N	IC LA7910 [EXCEPT EK]
60	EI-403233N	IC LB1641
61	EI-433063N	IC LC74763-9143
62	EI-435252N	IC LC89977M-TE-R FPR T16E
63	EI-435747N	IC MC14052BDR2 FP T16E 6MM WIDTH,PRINTED AS 14052B ON THE BODY
64	EI-436224J	IC MC14052BFR2 FPR T32P [8MM WIDTH,PRINTED AS MC14052B ON THE BODY
65	EI-429889N	IC MM1112XFBE FPBT12E [SEG]
66	EI-435190N	IC MM1113XFBE FPB T12E [EA,EK]
67	EI-435471N1	IC M37774M9H269GP EXHSYPL2 [EXCEPT SEG]
68	EI-435472N1	IC M37774M9H270GP EXHSYSL2 [SEG]
69	EI-432902N	IC M65843FP
70	EI-432840N	IC NJM2177AFB3
71	EI-428194J	IC NJM4558DD
72	EI-403306N	IC NJM4558L
73	EI-353750N	IC NJM4558MB T1 T1T32P
74	EI-435187N	IC S-806H-Z TO-92 T05
75	EI-433060N	IC SAA7283GP
76	EI-428403N	IC SDA5649X FP T24E [EXCEPT EA]
77	EI-435189N	IC STV6400D-TR FPTRT24E [EOH,EOG,SEG]
78	EI-422128N	IC TA76431S T05
79	EI-435769N	IC TC9412AP
80	EI-416611N	IC TDA8417 [EA,EOG]
81	EI-433062N	IC TDA9614H
82	EI-394868N	IC UPC1820CA [SEG]
83	EI-425646N	IC UPC1823ACU
84	EI-337530N	IC UPC574J
85	EI-435473N	IC UPD78043FGF-022-3B9EXHDSPD1
86	EI-431275N	IC 24LC04BT/SN FP T12E
87	EI-427639J	OSC CE CSA2.00MG 2.000MHZ
88	EI-394870N	OSC CE CSB500F23 504.5KHZ [SEG]
89	EI-413047N	OSC CE CST5.00MGW 5.000MHZ
90	EI-416872N	OSC X'TALAPS1004A 17.734475MH
91	EI-425240N	OSC X'TALAPS1011A 16.000MHZ
92	EI-433914N	OSC X'TALAPS1026 8.192MHZ
93	EI-425185N	OSC X'TALASP1006 10.000MHZ [EA,EOG]
94	EI-431323N	OSC X'TAL C-002RX 32.768KHZ
95	EI-405660N	OSC X'TAL HC-49U 4.433619MHZ
96	EM-429960N	IND FL FIP10CCM7A CHARACTER [EXCEPT SEG]
97	EM-429961N	IND FL FIP10CDM7A CHARACTER [SEG]
98	EO-432745N	OSC CE CSB500F32 500KHZ
99	⚠ ER-408829N	R FUSE V T05 RF25SCVTP1/4WR11K
100	⚠ ER-418648N	R FUSE V T05 RF25SCVTP1/4WR24K
101	⚠ ER-400729N	R FUSE V T05 RF25SCVTP1/4WR47K [SEG]
102	⚠ ER-410380N	R FUSE V T05 RF25SCVTP1/4WR91K
103	⚠ ER-435803N	R FUSE V T05RF25SVTP 1/4W 8R2J
104	ES-426275N	SW MICRO ESE11SV1A
105	ES-433183N	SW MICRO MPU10390MLB0
106	ES-433595N	SW MODE SELECTOR MMS00340ZMBO
107	ES-414593N	SW TACT SOR-142HS T05
108	ET-428361N	DETECTOR GP1U281X
109	⚠ ET-422113N	PHOTO COUPLER PS2561-1-V
110	ET-429898N	TR C.DTA114EKA T146T08E
111	ET-433976N	TR C.DTA114TKA T146T08E
112	ET-429896N	TR C.DTA144EKA T146T08E
113	ET-429899N	TR C.DTA144TKA T146T08E [SEG]
114	ET-430868N	TR C.DTC114EKA T146T08E

Ref. No.	Part No.	Description
115	ET-433072N	TR C.DTC114TKA T146T08E
116	ET-428400N	TR C.DTC143EKA T146T08E
117	ET-432937N	TR C.DTC143TKA T146T08E
118	ET-422444N	TR C.DTC143ZK T146T08E
119	ET-429897N	TR C.DTC144EKA T146T08E [EA,EK]
120	ET-433071N	TR C.DTC144TKA T146T08E [EOH,EOG,SEG]
121	ET-421984N	TR C.UN211D TXT08E
122	ET-421999N	TR C.UN221D TXT08E
123	ET-416932N	TR C.2SB709A R,S TXT08E
124	ET-432740N	TR C.2SC2480 T,S TXT08E
125	ET-422464N	TR C.2SD2118 Q,R,S FPTLT16E
126	ET-428373N	TR C.2SD2318 E,U,V FPTLT16E
127	ET-416933N	TR C.2SD601A R,S TXT08E
128	ET-386058N	TR D-C.IMX1 T110T08E
129	ET-415140N	TR DTA115TS T05
130	ET-386784N	TR DTA143TS T05
131	ET-364023N	TR DTC114ES T05 [SEG]
132	ET-364645N	TR DTC143ES T05
133	ET-368786N	TR DTC143ZS T05
134	ET-361961N	TR DTC144ES T05 [SEG]
135	ET-373201N	TR DTC144TS T05
136	ET-427706N	TR FET C.2SJ106 Y TE85RT08E
137	ET-364705N	TR FET 2SJ105 Y T05
138	⚠ ET-435458N	TR FET 2SK2147-01R-F70R
139	ET-390010N	TR PHOTO PT4800
140	ET-390009N	TR PHOTO PT493F
141	ET-392746N1	TR 2SA933AS R,S T05 [EA,EK]
142	ET-433918N	TR 2SB1240 Q,R T05
143	ET-404498N	TR 2SB1306 Q,R T05
144	ET-422154N	TR 2SB1426 Q,R T05 [SEG]
145	ET-392663N	TR 2SC1740S R,S T05 [EOH,EOG,SEG]
146	ET-414816N	TR 2SC2668 Y T05
147	ET-368108N	TR 2SC2926S P,Q T05 [SEG]
148	ET-435793N	TR 2SC4596 F
149	⚠ ET-401091J	TR 2SD2144S U,V,W T05
150	HE-433151N	HEAD E VTR-1X2ERS11-108
151	HR-435698N	HEAD ASSY HVUXA1003A
152	MB-433627N	BELT CAPSTAN (SG)
153	MI-433579N1	ARM IDLER PART
154	MI-433597N7	DISK CLUTCH PART
155	ML-433604N3	ARM REVIEW PART
156	ML-433586N	ARM SLOW BRAKE PART
157	ML-433576N	LEVER TOGGLE(L)
158	ML-433553N1	MAIN BRAKE(L)BLK
159	ML-433546N1	MAIN BRAKE(R)BLK
160	ML-433590N	SLIDE MAIN
161	MT-433537N	DISK REEL
162	MZ-433591N	GEAR CAM CENTER
163	MZ-433578N	GEAR F/R
164	MZ-433568N	GEAR TOGGLE(R)BLK
165	MZ-433589N	GEAR WHEEL

2. MECHANISM (1) BLOCK

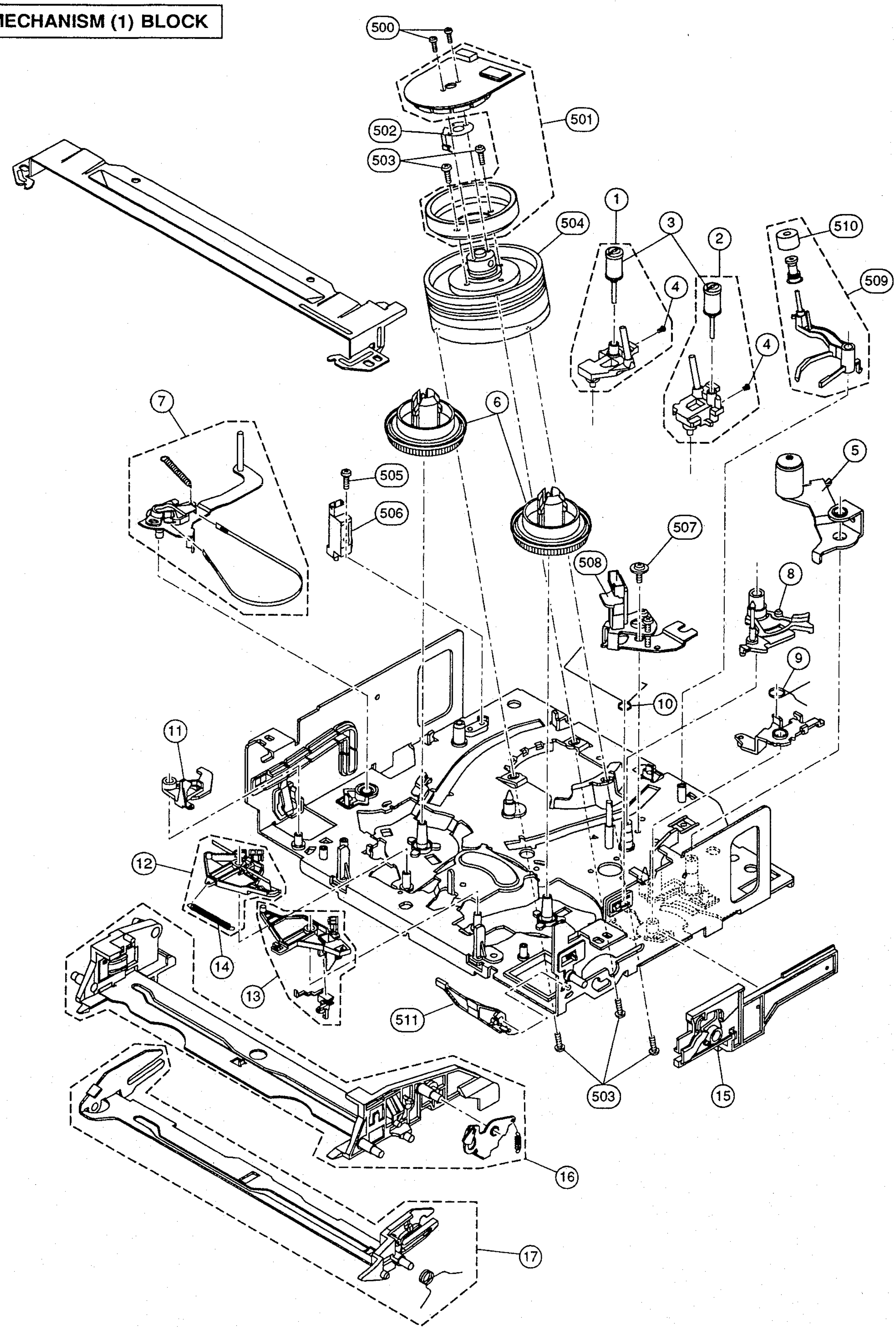
Ref. No.	Part No.	Description
1	BV-433522N1	GUIDE LEADER(L)BLK
2	BV-433534N1	GUIDE LEADER(R)BLK
3	VT-433526N	GUIDE ROLLER PART
4	ZS-418616J	PAN20X2.8STL CMT PS1 LEADER
5	BL-433609N3	ARM PINCH BLK
6	MT-433537N	DISK REEL
7	BL-433538N2	ARM TENSION BLK
8	ML-433604N3	ARM REVIEW PART
9	ZG-433559N	SP TORSION PINCH
10	ZG-433608N3	SP TORSION REVIEW
11	ML-433560N	LEVER DETECTOR
12	ML-433553N1	MAIN BRAKE(L)BLK
13	ML-433546N1	MAIN BRAKE(R)BLK
14	ZG-433557N	SP PULL M.B
15	ML-433567N1	SLIDE LOADING
16	BV-433615N2	HOLDER CASSETTE BLK
17	BL-433561N2	ARM LOADING BLK
18	BB-433174N	MECHA BASE BLK NX
500	ZS-417161N	PAN23X04STL CMT (SG)
501	BM-433198N	MOTOR F20EL60
502	MZ-433904N	EARTH BRUSH PART
503	ZS-479474N	PAN26X05STL CMT (SG)
504-A	BV-V1234D430J	TL DRUMBLK(SERVICE)NX-6PAL [EXCEPT SEG]
504-B	BV-V1234D430K	TL DRUMBLK(SERVICE)NX-6SEG [SEG]
505	ZS-403887N	PT BID26X12STL CMT (SG)
506	HE-433151N	HEAD E VTR-1X2ERS11-108
507	ZS-344754N	ST PAN30X06STL CMT C080 (SG)
508	HR-435698N	HEAD ASSY HVUXA1003A
509	BL-433689N	HEAD CLEANER BLK (SG)
510	HZ-417681N	ROLLER HEAD CLEANER(2) (SG)
511	ML-433628N	ARM MASK OPENER (SG)

The parts reference numbered 500 to 511 are not supplied with the "MECHA BASE BLK NX".

NOTE :

Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

MECHANISM (1) BLOCK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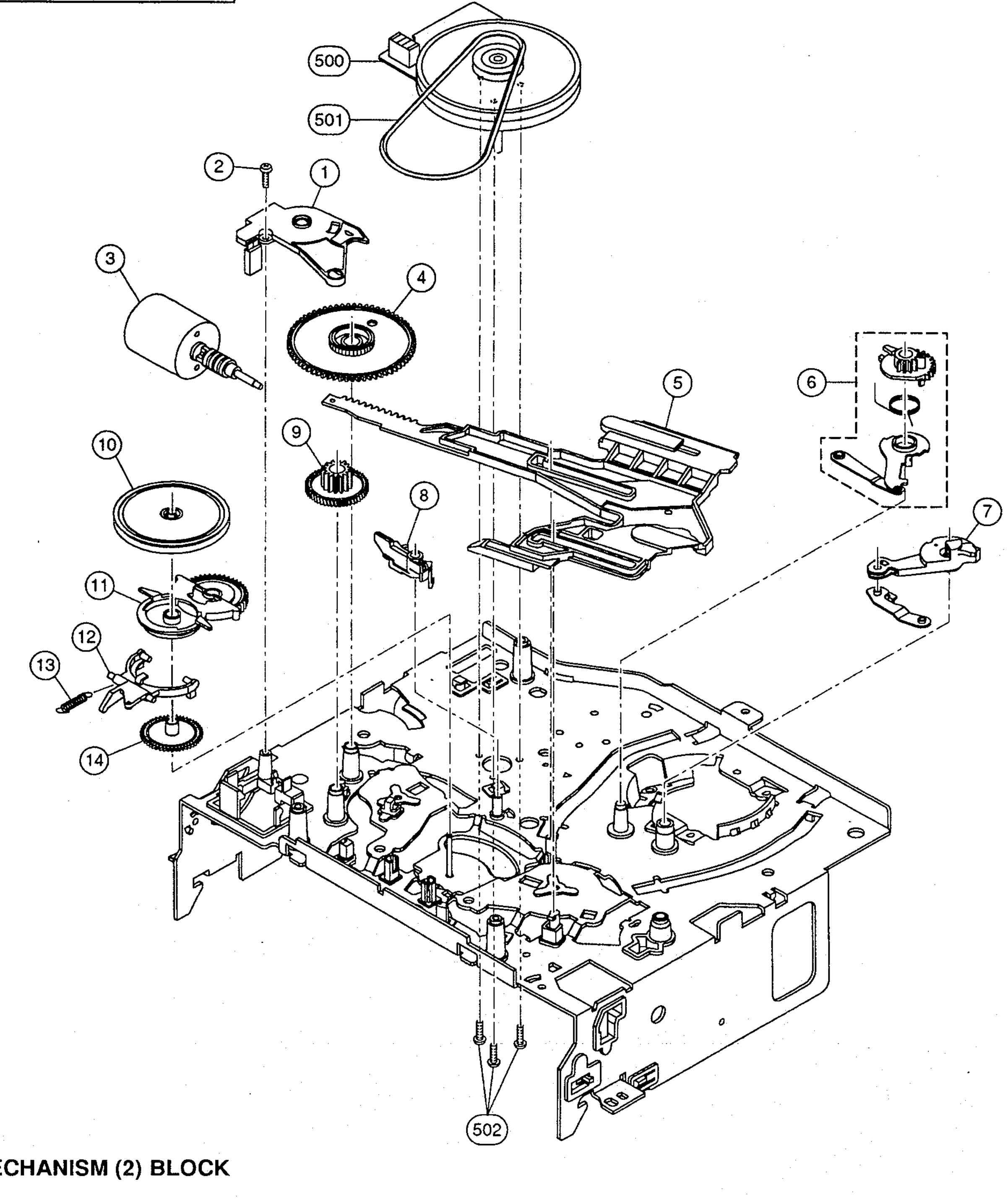
MECHANISM (2) BLOCK



3. MECHANISM (2) BLOCK

Ref. No.	Part No.	Description
1	ES-433595N	SW MODE SELECTOR MMS00340ZMBO
2	ZS-389950N	PT BID26X10STL CMT (SG)
3	BM-433593N1	LOADING MOTOR PART
4	MZ-433591N	GEAR CAM CENTER
5	ML-433590N	SLIDE MAIN
6	MZ-433568N	GEAR TOGGLE(R)BLK
7	ML-433576N	LEVER TOGGLE(L)
8	ML-433586N	ARM SLOW BRAKE PART
9	MZ-433589N	GEAR WHEEL
10	MI-433597N7	DISK CLUTCH PART
11	MI-433579N1	ARM IDLER PART
12	ML-433584N	ARM COUPLING
13	ZG-428605N	SP PULL COUPLING
14	MZ-433578N	GEAR F/R

Ref. No.	Part No.	Description
500	BM-433176N	MOTOR F2QTB24
501	MB-433627N	BELT CAPSTAN (SG)
502	ZS-201275N	ST PAN26X06STL CMT (SG)

The parts reference numbered 500 to 511 are not supplied with the "MECHA BASE BLK NX".

NOTE :

Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

4. P.C. BOARD BLOCK

Ref. No.	Part No.	Description
1-A	BA-V1244V600A	NS PC MAIN BLK G2DPLEA-D
1-B	BA-V1244V600B	NS PC MAIN BLK G2DPLEK-N
1-C	BA-V1244V600C	NS PC MAIN BLK G2DPLEOH-DN
1-D	BA-V1244V600D	NS PC MAIN BLK G2DPLEOG-D
1-E	BA-V1244V600L	NS PC MAIN BLK G2DPLSEG-N
2-A	BA-F5002V010A	NS EX VIF-HIFI BLKHIFI-EA
2-B	BA-F5002V010B	NS EX VIF-HIFI BLKHIFI-EK-N
2-C	BA-F5002V010E	NS EX VIF-HIFI BLKHIFI-EOH-N
2-D	BA-F5002V010D	NS EX VIF-HIFI BLKHIFI-EOG
2-E	BA-F5002V020B	NS EX VIF-SEG BLK HIFI-SEG-N
3-A	BA-V1244V650A	NS PC DPL/AMP BLK G2DPLEA-D [EA]
3-B	BA-V1244V650B	NS PC DPL/AMP BLK G2DPLEK-N [EXCEPT EA]
4	BA-V1244V500A	NS PC POWER BLK G2DPL
5-A	BA-V1244V640A	NS PC D-NICAM BLK G2DPLEK-N [EK]
5-B	BA-V1244V640B	NS PC D-NICAM BLK G2DPLEOH-DN [EOH]
5-C	BA-V1244V640C	NS PC D-NICAM BLK G2DPLSEG-N [SEG]

PC (#) MAIN BLK CONSISTS OF FOLLOWING P.C. BOARDS.

- MAIN P. C. BOARD
- VIF P. C. BOARD

5. MAIN P.C. BOARD

Ref. No.	Part No.	Description
C430	EC-416655N	C DBL LAYER T05 FM0H473Z 5.5DC
D1	ED-307573N	D SILICON H 1SS131T-77 T26
D2	ED-307573N	D SILICON H 1SS131T-77 T26
D3	ED-307573N	D SILICON H 1SS131T-77 T26 [EOH,EOG,SEG]
D4-A	ED-425442N	D ZENER H MTZJ13A T26 [EOH,EOG]
D4-B	ED-428014N	D ZENER H MTZJ6.8A T26 [SEG]
D5	ED-307573N	D SILICON H 1SS131T-77 T26 [EOH,EOG,SEG]
D8	ED-307573N	D SILICON H 1SS131T-77 T26 [SEG]
D9	ED-307573N	D SILICON H 1SS131T-77 T26 [SEG]
D11	ED-307573N	D SILICON H 1SS131T-77 T26 [SEG]
D12	ED-307573N	D SILICON H 1SS131T-77 T26 [EK]
D13	ED-307573N	D SILICON H 1SS131T-77 T26 [EK]
D201	ED-418820N	D ZENER H MTZJ5.1C T26
D202	ED-307573N	D SILICON H 1SS131T-77 T26
D203	ED-418820N	D ZENER H MTZJ5.1C T26
D204	ED-307573N	D SILICON H 1SS131T-77 T26
D205	ED-418820N	D ZENER H MTZJ5.1C T26
D206	ED-434522N	D ZENER H MTZJ10C T26
D207	ED-435259N	D ZENER H MTZJ13B T26
D208	ED-425443N	D ZENER H MTZJ18A T26
D209	ED-307573N	D SILICON H 1SS131T-77 T26
D301	ED-307573N	D SILICON H 1SS131T-77 T26
D302	ED-307573N	D SILICON H 1SS131T-77 T26
D305	ED-307573N	D SILICON H 1SS131T-77 T26
D401	ED-390012N	D LED GL4800 INFRARED
D402	ED-390012N	D LED GL4800 INFRARED
D403	ED-390011N	D LED GL451 INFRARED
D404	ED-403280N	D SILICON 1N4002N02 T05 100/1A
D405	ED-403280N	D SILICON 1N4002N02 T05 100/1A
D406	ED-403280N	D SILICON 1N4002N02 T05 100/1A
D407	ED-403280N	D SILICON 1N4002N02 T05 100/1A
D409	ED-433962N	D ZENER H MTZJ7.5C T26
D410	ED-307573N	D SILICON H 1SS131T-77 T26
D411	ED-307573N	D SILICON H 1SS131T-77 T26
D412	ED-422519N	D ZENER H MTZJ4.3B T26
D501	ED-307573N	D SILICON H 1SS131T-77 T26
D550	ED-307573N	D SILICON H 1SS131T-77 T26
D551	ED-307573N	D SILICON H 1SS131T-77 T26
D601	ED-307573N	D SILICON H 1SS131T-77 T26
D602	ED-307573N	D SILICON H 1SS131T-77 T26
D603	ED-307573N	D SILICON H 1SS131T-77 T26
D606	ED-307573N	D SILICON H 1SS131T-77 T26 [EOH,EOG,SEG]
D821	ED-307573N	D SILICON H 1SS131T-77 T26 [EXCEPT EA]
D831	ED-307573N	D SILICON H 1SS131T-77 T26
D832	ED-307573N	D SILICON H 1SS131T-77 T26
D841	ED-386031N	D SILICON C.MA110-TW TWT08E
FL101	EH-394947N	FILTER CE SFT5.74MA [EA,EOG]
FL102	EH-394948N	FILTER CE SFT5.5MA [EA,EOG]
FL301	EO-418829N	COIL OSC 1 6062 70.0KHZ
FL601	EH-433119N	FILTER LC LP TZV-76C [SEG]
FL871	EO-422362N	COIL TUN1 V1184-049B VCO
FR201	⚠ ER-418648N	R FUSE V T05 RF25SCVTP1/4WR24K
FR202	⚠ ER-400729N	R FUSE V T05 RF25SCVTP1/4WR47K [SEG]
FR203	⚠ ER-410380N	R FUSE V T05 RF25SCVTP1/4WR91K
FR401	⚠ ER-418648N	R FUSE V T05 RF25SCVTP1/4WR24K
FR402	⚠ ER-400729N	R FUSE V T05 RF25SCVTP1/4WR47K
FR403	⚠ ER-418648N	R FUSE V T05 RF25SCVTP1/4WR24K
IC1	EI-337530N	IC UPC574J
IC2	EI-390053N	IC LA7910 [EXCEPT EK]
IC101	EI-389644N	IC BA403 [EA,EOG]
IC102	EI-389644N	IC BA403 [EA,EOG]
IC103	EI-416611N	IC TDA8417 [EA,EOG]
IC201	EI-428194J	IC NJM4558DD
IC301	EI-433062N	IC TDA9614H
IC302	EI-385995N	IC BA7755A
IC303	EI-435451N	IC BU4053BCF-T1 FPT1T32P [EOH,SEG]
IC401-A	EI-435471N1	IC M37774M9H269GP EXHSYPL2 [EXCEPT SEG]
IC401-B	EI-435472N1	IC M37774M9H270GP EXHSYSL2 [SEG]
IC402	EI-435473N	IC UPD78043FGF-022-3B9EXHDSPD1
IC403	EI-353750N	IC NJM4558MB T1 T1T32P
IC404	EI-403233N	IC LB1641
IC405	EI-435187N	IC S-806H-Z TO-92 T05
IC406	EI-431275N	IC 24LC04BT/SN FP T12E
IC501	EI-435229N	IC LA70011M-TRM FPR T24E
IC550	EI-433037N	IC LA7256
IC601	EI-432781N	IC LA7447BM
IC602	EI-435252N	IC LC89977M-TE-R FPR T16E
IC604	EI-432899N	IC LA7337 [SEG]
IC605	EI-429889N	IC MM1112XFBE FPBT12E [SEG]
IC801	EI-435189N	IC STV6400D-TR FPTRT24E [EOH,EOG,SEG]
IC802	EI-435190N	IC MM1113XFBE FPB T12E [EA,EK]
IC871	EI-433063N	IC LC74763-9143
IC892	EI-428403N	IC SDA5649X FP T24E [EXCEPT EA]
L1	EO-380662J	COIL FIX 1 LF-5.0S F05 2R2M
L2	EO-380662J	COIL FIX 1 LF-5.0S F05 2R2M [EOH,EOG]
L3	EO-380662J	COIL FIX 1 LF-5.0S F05 2R2M
L6	EO-422488N	COIL FIX 1 LF-5.0S T26 100J [EXCEPT SEG]
L101	EO-422488N	COIL FIX 1 LF-5.0S T26 100J [EA,EOG]

Ref. No.	Part No.	Description
L201	EO-422134N	COIL FIX 2 PC7-330K 330K
L202	EO-422134N	COIL FIX 2 PC7-330K 330K
L301	EO-422477N	COIL FIX 1 LF-5.0S T26 470J
L302	EO-392659N	COIL FIX 1 LHL06TB T05 562J
L303	EO-422477N	COIL FIX 1 LF-5.0S T26 470J
L304	EO-422477N	COIL FIX 1 LF-5.0S T26 470J
L306	EO-422477N	COIL FIX 1 LF-5.0S T26 470J
L312	EO-390716N	COIL FIX 1 LHL06TB T05 272J
L401	EO-432682N	COIL FIX 1 EL0405RA T05 220J
L402	EO-410256N	COIL FIX 1 EL0405RA T05 100J [EXCEPT EK]
L501	EO-389412N	COIL FIX 1 LAV35VB007 T05 101J
L502	EO-389412N	COIL FIX 1 LAV35VB007 T05 101J
L503-A	EO-422473N	COIL FIX 1 LF-5.0S T26 680J [EXCEPT SEG]
L503-B	EO-422475N	COIL FIX 1 LF-5.0S T26 560J [SEG]
L504-A	EO-428358N	COIL FIX 1 LF-5.0S T26 221J [EXCEPT SEG]
L504-B	EO-428359N	COIL FIX 1 LF-5.0S T26 271J [SEG]
L505	EO-422472N	COIL FIX 1 LF-5.0S T26 8R2J
L506	EO-428360N	COIL FIX 1 LF-5.0S T26 331J
L507	EO-422478N	COIL FIX 1 LF-5.0S T26 390J
L508	EO-422484N	COIL FIX 1 LF-5.0S T26 180J
L509	EO-422484N	COIL FIX 1 LF-5.0S T26 180J
L510	EO-422483N	COIL FIX 1 LF-5.0S T26 181J
L550	EO-422477N	COIL FIX 1 LF-5.0S T26 470J
L551	EO-422477N	COIL FIX 1 LF-5.0S T26 470J
L552	EO-422479N	COIL FIX 1 LF-5.0S T26 330J
L601	EO-414622N	COIL FIX 1 EL0607RA T05 101K
L602	EO-422479N	COIL FIX 1 LF-5.0S T26 330J
L603	EO-389412N	COIL FIX 1 LAV35VB007 T05 101J
L604	EO-422479N	COIL FIX 1 LF-5.0S T26 330J [EOH,EOG,SEG]
L605	EO-422477N	COIL FIX 1 LF-5.0S T26 470J
L606	EO-422473N	COIL FIX 1 LF-5.0S T26 680J
L607	EO-422477N	COIL FIX 1 LF-5.0S T26 470J
L608	EO-422474N	COIL FIX 1 LF-5.0S T26 6R8J
L609	EO-422477N	COIL FIX 1 LF-5.0S T26 470J
L701	EO-425202N	COIL FIX 1 LF-5.0S T26 270J [SEG]
L702	EO-422479N	COIL FIX 1 LF-5.0S T26 330J [SEG]
L703	EO-422475N	COIL FIX 1 LF-5.0S T26 560J [SEG]
L704	EO-422488N	COIL FIX 1 LF-5.0S T26 100J [SEG]
L705	EO-422481N	COIL FIX 1 LF-5.0S T26 220J [SEG]
L706	EO-422474N	COIL FIX 1 LF-5.0S T26 6R8J [SEG]
L707	EO-414622N	COIL FIX 1 EL0607RA T05 101K [SEG]
L801	EO-389412N	COIL FIX 1 LAV35VB007 T05 101J
L802	EO-389412N	COIL FIX 1 LAV35VB007 T05 101J [EA,EK]
L803	EO-389412N	COIL FIX 1 LAV35VB007 T05 101J
L871	EO-389412N	COIL FIX 1 LAV35VB007 T05 101J
L872	EO-422488N	COIL FIX 1 LF-5.0S T26 100J [EOH,EOG,SEG]
L873	EO-422474N	COIL FIX 1 LF-5.0S T26 6R8J
MD1-A	BV-435474N	RF CONVERT.YAA21-1121G EA [EA]
MD1-B	BV-435423N	RF CONVERTER MDLP3E008A G/I/K [EK]
MD1-C	BV-429839N	RF CONVERTER YAA21-1045H G EO [EOH,EOG]
MD1-D	BV-429901N	RF CONVERTER YAA41-0081G SECAM [SEG]
PJ801	EJ-429978N	SOCKET 035 0 9846 05 21P [EXCEPT EA]
PJ802-A	EJ-435185N	PIN J JD06B1101N 6P [EXCEPT EK]
PJ802-B	EJ-435188N	PIN J JD06B1106N 6P [EK]
P4-A	EJ-433007N	SOCKET 00 6216 007 000 7P [EA]

Ref. No.	Part No.	Description
P4-B	EJ-433044N	SOCKET 00 6216 009 000 9P [EXCEPT EA]
P401	EJ-434521N	SOCKET 15FE-BT-VK-N 15P
P402	EJ-434521N	SOCKET 15FE-BT-VK-N 15P
P403	EJ-435186N	SOCKET TWG-P11X-A1 11P
P413	EJ-433007N	SOCKET 00 6216 007 000 7P
P414	EJ-433163N	PLUG TKC-G10P-A1 10P
P501	EJ-434181N	SOCKET 10FE-BT-VK-N 10P
P801	EJ-434521N	SOCKET 15FE-BT-VK-N 15P
TR1	ET-429897N	TR C.DTC144EKA T146T08E [EA,EK]
TR2	ET-392746N1	TR 2SA933AS R,S T05 [EA,EK]
TR3	ET-416932N	TR C.2SB709A R,S TXT08E
TR5	ET-414816N	TR 2SC2668 Y T05
TR6	ET-392746N1	TR 2SA933AS R,S T05
TR7	ET-430868N	TR C.DTC114EKA T146T08E
TR8	ET-392663N	TR 2SC1740S R,S T05 [EOH,EOG,SEG]
TR9	ET-433071N	TR C.DTC144TKA T146T08E [EOH,EOG,SEG]
TR10	ET-416932N	TR C.2SB709A R,S TXT08E [EA,EK]
TR11	ET-416933N	TR C.2SD601A R,S TXT08E
TR12	ET-416932N	TR C.2SB709A R,S TXT08E
TR13	ET-364023N	TR DTC114ES T05 [SEG]
TR14	ET-416933N	TR C.2SD601A R,S TXT08E [SEG]
TR15	ET-416932N	TR C.2SB709A R,S TXT08E [SEG]
TR16	ET-416933N	TR C.2SD601A R,S TXT08E [SEG]
TR17	ET-429899N	TR C.DTA144TKA T146T08E [SEG]
TR18	ET-430868N	TR C.DTC114EKA T146T08E [SEG]
TR101	ET-392663N	TR 2SC1740S R,S T05 [EA,EOG]
TR102	ET-392663N	TR 2SC1740S R,S T05 [EA,EOG]
TR201	ET-422464N	TR C.2SD2118 Q,R,S FPTLT16E
TR202	ET-404498N	TR 2SB1306 Q,R T05
TR203	ET-422444N	TR C.DTC143ZK T146T08E
TR204	ET-428373N	TR C.2SD2318 E,U,V FPTLT16E
TR205	ET-428373N	TR C.2SD2318 E,U,V FPTLT16E
TR206	ET-392663N	TR 2SC1740S R,S T05
TR207	ET-392663N	TR 2SC1740S R,S T05 [EXCEPT SEG]
TR208	ET-392663N	TR 2SC1740S R,S T05
TR209	ET-428373N	TR C.2SD2318 E,U,V FPTLT16E
TR210	ET-416933N	TR C.2SD601A R,S TXT08E
TR211	ET-422154N	TR 2SB1426 Q,R T05 [SEG]
TR212	ET-416932N	TR C.2SB709A R,S TXT08E
TR213	ET-368786N	TR DTC143ZS T05
TR214	ET-392663N	TR 2SC1740S R,S T05
TR215	ET-422444N	TR C.DTC143ZK T146T08E [SEG]
TR216	ET-428373N	TR C.2SD2318 E,U,V FPTLT16E
TR301	ET-429897N	TR C.DTC144EKA T146T08E
TR302	ET-429896N	TR C.DTA144EKA T146T08E
TR303	ET-433072N	TR C.DTC114TKA T146T08E
TR304	ET-433072N	TR C.DTC114TKA T146T08E [EK]
TR305	ET-433072N	TR C.DTC114TKA T146T08E
TR310	ET-416932N	TR C.2SB709A R,S TXT08E
TR311	ET-416933N	TR C.2SD601A R,S TXT08E
TR312	ET-416932N	TR C.2SB709A R,S TXT08E
TR313	ET-430868N	TR C.DTC114EKA T146T08E
TR315	ET-429897N	TR C.DTC144EKA T146T08E [EOH,SEG]
TR316	ET-429897N	TR C.DTC144EKA T146T08E [EOH,SEG]
TR317	ET-428400N	TR C.DTC143EKA T146T08E
TR318	ET-416932N	TR C.2SB709A R,S TXT08E
TR319	ET-416932N	TR C.2SB709A R,S TXT08E

Ref. No.	Part No.	Description
TR320	ET-429897N	TR C.DTC144EKA T146T08E
TR321	ET-433072N	TR C.DTC114TKA T146T08E [EOH,SEG]
TR322	ET-416933N	TR C.2SD601A R,S TXT08E [EOH,SEG]
TR323	ET-416932N	TR C.2SB709A R,S TXT08E
TR324	ET-429897N	TR C.DTC144EKA T146T08E
TR401	ET-390010N	TR PHOTO PT4800
TR402	ET-390010N	TR PHOTO PT4800
TR403	ET-390009N	TR PHOTO PT493F
TR404	ET-390009N	TR PHOTO PT493F
TR405	ET-430868N	TR C.DTC114EKA T146T08E
TR406	ET-433918N	TR 2SB1240 Q,R T05
TR407	ET-428400N	TR C.DTC143EKA T146T08E
TR408	ET-416932N	TR C.2SB709A R,S TXT08E
TR409	ET-428400N	TR C.DTC143EKA T146T08E
TR410	ET-429897N	TR C.DTC144EKA T146T08E
TR411	ET-432937N	TR C.DTC143TKA T146T08E
TR412	ET-432937N	TR C.DTC143TKA T146T08E
TR413	ET-386784N	TR DTA143TS T05
TR414	ET-415140N	TR DTA115TS T05
TR415	ET-373201N	TR DTC144TS T05
TR416	ET-416933N	TR C.2SD601A R,S TXT08E [EXCEPT EA]
TR417	ET-416933N	TR C.2SD601A R,S TXT08E [EXCEPT EA]
TR418	ET-429897N	TR C.DTC144EKA T146T08E [EXCEPT EA]
TR419	ET-429897N	TR C.DTC144EKA T146T08E [EOH,EOG,SEG]
TR502	ET-429897N	TR C.DTC144EKA T146T08E
TR503	ET-429897N	TR C.DTC144EKA T146T08E
TR504	ET-429897N	TR C.DTC144EKA T146T08E
TR507	ET-429897N	TR C.DTC144EKA T146T08E
TR508	ET-429897N	TR C.DTC144EKA T146T08E [SEG]
TR509	ET-416933N	TR C.2SD601A R,S TXT08E
TR510	ET-429897N	TR C.DTC144EKA T146T08E
TR511	ET-416933N	TR C.2SD601A R,S TXT08E
TR512	ET-416933N	TR C.2SD601A R,S TXT08E
TR513	ET-416932N	TR C.2SB709A R,S TXT08E
TR514	ET-416933N	TR C.2SD601A R,S TXT08E
TR515	ET-433072N	TR C.DTC114TKA T146T08E
TR516	ET-421999N	TR C.UN221D TXT08E
TR518	ET-429897N	TR C.DTC144EKA T146T08E [SEG]
TR519	ET-416933N	TR C.2SD601A R,S TXT08E
TR520	ET-433072N	TR C.DTC114TKA T146T08E
TR550	ET-429899N	TR C.DTA144TKA T146T08E
TR552	ET-416933N	TR C.2SD601A R,S TXT08E
TR553	ET-416933N	TR C.2SD601A R,S TXT08E
TR601	ET-429898N	TR C.DTA114EKA T146T08E
TR602	ET-429897N	TR C.DTC144EKA T146T08E
TR603	ET-429896N	TR C.DTA144EKA T146T08E
TR604	ET-416933N	TR C.2SD601A R,S TXT08E
TR606	ET-429897N	TR C.DTC144EKA T146T08E
TR607	ET-429896N	TR C.DTA144EKA T146T08E [SEG]
TR608	ET-421984N	TR C.UN211D TXT08E
TR609	ET-429896N	TR C.DTA144EKA T146T08E [EOH,EOG,SEG]
TR610	ET-416933N	TR C.2SD601A R,S TXT08E
TR611	ET-416932N	TR C.2SB709A R,S TXT08E
TR612	ET-429897N	TR C.DTC144EKA T146T08E
TR613	ET-429896N	TR C.DTA144EKA T146T08E
TR614	ET-416932N	TR C.2SB709A R,S TXT08E
TR615	ET-416933N	TR C.2SD601A R,S TXT08E
TR616	ET-430868N	TR C.DTC114EKA T146T08E
TR617	ET-433072N	TR C.DTC114TKA T146T08E
TR619	ET-386058N	TR D-C.IMX1 T110T08E
TR621	ET-416932N	TR C.2SB709A R,S TXT08E
TR622	ET-429897N	TR C.DTC144EKA T146T08E
TR623	ET-416933N	TR C.2SD601A R,S TXT08E
TR701	ET-429896N	TR C.DTA144EKA T146T08E [SEG]
TR702	ET-433071N	TR C.DTC144TKA T146T08E [SEG]
TR703	ET-416933N	TR C.2SD601A R,S TXT08E [SEG]
TR704	ET-429896N	TR C.DTA144EKA T146T08E [SEG]
TR705	ET-416933N	TR C.2SD601A R,S TXT08E [SEG]
TR706	ET-429899N	TR C.DTA144TKA T146T08E [SEG]
TR801	ET-416932N	TR C.2SB709A R,S TXT08E [EA,EK]
TR802	ET-416932N	TR C.2SB709A R,S TXT08E
TR826	ET-416932N	TR C.2SB709A R,S TXT08E [EOH,EOG,SEG]
TR827	ET-429897N	TR C.DTC144EKA T146T08E [EOH,EOG,SEG]
TR828	ET-429896N	TR C.DTA144EKA T146T08E [EXCEPT EA]
TR829	ET-429897N	TR C.DTC144EKA T146T08E [EXCEPT EA]
TR830	ET-429897N	TR C.DTC144EKA T146T08E [EXCEPT EA]
TR831	ET-430868N	TR C.DTC114EKA T146T08E
TR832	ET-429898N	TR C.DTA114EKA T146T08E
TR841	ET-429897N	TR C.DTC144EKA T146T08E
TR842	ET-433976N	TR C.DTA114TKA T146T08E
TR843	ET-416933N	TR C.2SD601A R,S TXT08E
TR844	ET-416933N	TR C.2SD601A R,S TXT08E
TR871	ET-416932N	TR C.2SB709A R,S TXT08E
TR872	ET-416932N	TR C.2SB709A R,S TXT08E
TR873	ET-416933N	TR C.2SD601A R,S TXT08E
TR874	ET-416932N	TR C.2SB709A R,S TXT08E
TU1-A	EE-435227N	TV TUNER TELE1-012A [EA]
TU1-B	EE-435224N	TV TUNER TELB1-016A [EK]
TU1-C	EE-435225N	TV TUNER TELE4-045A [EOH,EOG]
TU1-D	EE-435226N	TV TUNER TELE4-049A [SEG]
VL101	EO-435766N	COIL TUN1 JPS 372 S-FM DET5.74 [EA,EOG]
VL102	EO-435248N	COIL TUN1 JPS-110 M-FM DET5.5 [EA,EOG]
VR101	EV-397433N	R S-FIX H T05EVNDXAA03 0.1W152 [EA,EOG]
X101	EI-425185N	OSC X'TAL ASP1006 10.000MHZ [EA,EOG]
X401	EI-425240N	OSC X'TAL APS1011A 16.000MHZ
X402	EI-431323N	OSC X'TAL C-002RX 32.768KHZ
X403	EI-413047N	OSC CE CST5.00MGW 5.000MHZ
X601	EI-405660N	OSC X'TAL HC-49U 4.433619MHZ
X871	EI-416872N	OSC X'TAL APS1004A 17.734475MH
1	SZ-433649N	HOLDER S/E SENSOR (SG)
2	SZ-428508N1	HOLDER PHOTO SENSOR (SG)
3	SZ-433648N1	HOLDER D-LED (SG)

6. VIF-HIFI P.C. BOARD (EXCEPT SEG)

Ref. No.	Part No.	Description
FL1-A	EH-432626N	FILTER CE SAF33.4MC70Z [EA,EOG]
FL1-B	EH-432625N	FILTER CE SAF33.0MC70Z [EOH]
FL1-C	EH-428166N	FILTER CE SAF33.0MCD70Z [EK]
FL2	EH-432629N	FILTER CE SAF38.9MZW70Z
FL3-A	EH-368948N	FILTER CE TPS5.5MWA 5.5000MHZ [EA,EOH,EOG]
FL3-B	EH-405642N	FILTER CE TPS6.0MB-TF21 T05 [EK]
FL4-A	EH-416920N	FILTER CE SFT6.0MA [EK]
FL4-B	EH-394948N	FILTER CE SFT5.5MA [EOH]

Ref. No.	Part No.	Description
IC1	EI-432759N	IC LA7577N
L4-A	EO-428463N	COIL FIX 1 EL0405RA T05 2R7J [EA,EK]
L4-B	EO-428123N	COIL FIX 1 EL0405RA T05 5R6J [EOH,EOG]
L5	EO-432681N	COIL FIX 1 EL0405RA T05 2R2J
L9-A	EO-410256N	COIL FIX 1 EL0405RA T05 100J [EOH,EOG]
L9-B	EO-403937N	COIL FIX 1 EL0405RA T05 4R7J [EA]
L9-C	EO-428462N	COIL FIX 1 EL0405RA T05 6R8J [EK]
L10-A	EO-408956N	COIL FIX 1 EL0405RA T05 390J [EA,EOH,EOG]
L10-B	EO-403273N	COIL FIX 1 EL0405RA T05 330J [EK]
TR3	ET-432740N	TR C.2SC2480 T,S TXT08E
TR6	ET-416933N	TR C.2SD601A R,S TXT08E
TR7	ET-416933N	TR C.2SD601A R,S TXT08E [EK,EOH]
VL1	EO-435235N	COIL TUN1 JPS-105 TRAP31.9M HF [EOH,EOG]
VL2	EO-435236N	COIL TUN1 JPS-106 TRAP41.4M HF [EOH,EOG]
VL6-A	EO-435237N	COIL TUN1 JPS-061 SIF I HF [EK]
VL6-B	EO-435239N	COIL TUN1 JPS-062 SIF B/G HF [EOH]
VL7	EO-435241N	COIL TUN1 JPS-241 AFT 38.9M HF
VL8	EO-435242N	COIL TUN1 JPS-107 VCO 38.9M HF
VR1	EV-432754N	R S-FIX H T05 RH0684C 0.3W 223

7. VIF-SEG P.C. BOARD (SEG)

Ref. No.	Part No.	Description
D1	ED-416930N	D SILICON C.MA77-TX TXT08E
D2	ED-416930N	D SILICON C.MA77-TX TXT08E
D3	ED-416930N	D SILICON C.MA77-TX TXT08E
D5	ED-432743N	D ZENER C.RD5.6MB2-T1 T1T08E
D6	ED-432744N	D SILICON C.MC2840-1 T1T08E
FL1	EH-432630N	FILTER CE SAF41MA70Z
FL2	EH-432623N	FILTER CE SAF32.4MCA70Z
FL3	EH-432629N	FILTER CE SAF38.9MZW70Z
FL4	EH-432626N	FILTER CE SAF33.4MC70Z
FL5	EH-368948N	FILTER CE TPS5.5MWA 5.5000MHZ
FL6	EH-414623N	FILTER CE TPS6.5MB-TF21 T05
FL7	EH-433121N	FILTER CE SFSH5.5MCB-TF21 T05
IC1	EI-425646N	IC UPC1823ACU
L2	EO-427255N	COIL FIX 1 EL0405RA T05 1R0J
L3	EO-410256N	COIL FIX 1 EL0405RA T05 100J
L4	EO-410256N	COIL FIX 1 EL0405RA T05 100J
L5	EO-410256N	COIL FIX 1 EL0405RA T05 100J
L6	EO-432682N	COIL FIX 1 EL0405RA T05 220J
L7	EO-410256N	COIL FIX 1 EL0405RA T05 100J
L8	EO-410256N	COIL FIX 1 EL0405RA T05 100J
L11	EO-410256N	COIL FIX 1 EL0405RA T05 100J
L14	EO-432683N	COIL FIX 1 EL0405RA T05 3R3J
L15	EO-403273N	COIL FIX 1 EL0405RA T05 330J
TR2	ET-432740N	TR C.2SC2480 T,S TXT08E
TR3	ET-416933N	TR C.2SD601A R,S TXT08E
TR4	ET-429897N	TR C.DTC144EKA T146T08E
TR5	ET-429897N	TR C.DTC144EKA T146T08E
TR6	ET-429896N	TR C.DTA144EKA T146T08E
TR7	ET-429896N	TR C.DTA144EKA T146T08E
TR8	ET-432937N	TR C.DTC143TKA T146T08E
TR9	ET-416933N	TR C.2SD601A R,S TXT08E
TR10	ET-416932N	TR C.2SB709A R,S TXT08E
TR14	ET-416932N	TR C.2SB709A R,S TXT08E
TR15	ET-429897N	TR C.DTC144EKA T146T08E
TR16	ET-416933N	TR C.2SD601A R,S TXT08E
TR18	ET-432740N	TR C.2SC2480 T,S TXT08E
VC1	EC-412095N	C S-FIX H T05 TZ03Z100TR169
VL9	EO-435243N	COIL TUN1 JPS-243 SIF B/G SEG
VL10	EO-435244N	COIL TUN1 JPS-516 VCO 38.9 SEG
VL16	EO-435245N	COIL TUN1 JPS-515TRAP40.4M SEG
VR1	EV-432758N	R S-FIX H T05 RH063MC 0.1W 105
X1	EO-432745N	OSC CE CSB500F32 500KHZ

8. IN-OUT P.C. BOARD (EXCEPT EA)

Ref. No.	Part No.	Description
L101	EO-437197N	COIL LF CM05RB01
PJ1	EJ-389864N	SOCKET M1817 21P
PJ21	EJ-435492N	PIN J RJ-1070-01-0300A BLAC.1P
PJ22	EJ-435492N	PIN J RJ-1070-01-0300A BLAC.1P
PJ23	EJ-435493N	PIN J RJ-1070-02-0300A RED 1P
PJ24	EJ-435495N	PIN J RJ-1070-33-0300A GRAY 1P
PJ25	EJ-435494N	PIN J RJ-1070-03-0300A WHIT.1P
P1	EJ-435405N	SOCKET 00 6216 015 110A 15P
P21	EJ-434183N	SOCKET 10FE-ST-VK-N 10P
TM42	EJ-435496N	TERMINAL PUSH YKD21-0180 2P
TR1	ET-427706N	TR FET C.2SJ106 Y TE85RT08E
TR2	ET-427706N	TR FET C.2SJ106 Y TE85RT08E
TR3	ET-427706N	TR FET C.2SJ106 Y TE85RT08E
TR4	ET-427706N	TR FET C.2SJ106 Y TE85RT08E

9. EA-OUT P.C. BOARD (EA)

Ref. No.	Part No.	Description
PJ1	EJ-435493N	PIN J RJ-1070-02-0300A RED 1P
PJ2	EJ-435494N	PIN J RJ-1070-03-0300A WHIT.1P
PJ3	EJ-435648N	PIN J RJ-1070-04-0300A YELL.1P
PJ21	EJ-435492N	PIN J RJ-1070-01-0300A BLAC.1P
PJ22	EJ-435492N	PIN J RJ-1070-01-0300A BLAC.1P
PJ23	EJ-435493N	PIN J RJ-1070-02-0300A RED 1P
PJ24	EJ-435495N	PIN J RJ-1070-33-0300A GRAY 1P
PJ25	EJ-435494N	PIN J RJ-1070-03-0300A WHIT.1P
P1	EJ-435405N	SOCKET 00 6216 015 110A 15P
P21	EJ-434183N	SOCKET 10FE-ST-VK-N 10P
TM42	EJ-435496N	TERMINAL PUSH YKD21-0180 2P
TR1	ET-364705N	TR FET 2SJ105 Y T05
TR2	ET-364705N	TR FET 2SJ105 Y T05
TR3	ET-364705N	TR FET 2SJ105 Y T05
TR4	ET-364705N	TR FET 2SJ105 Y T05

10. SENSOR P.C. BOARD

Ref. No.	Part No.	Description
P1	EJ-433184N	SOCKET TAS-X06X-G1 6P
P3	EJ-435221N	PLUG TWG-P11P-A1 11P
SW1	ES-433183N	SW MICRO MPU10390MLB0
SW2	ES-426275N	SW MICRO ESE11SV1A

11. DPL/AMP P.C. BOARD

Ref. No.	Part No.	Description
D1	ED-428162N	D SCHOTTKY 1S30-E T26
D2	ED-428162N	D SCHOTTKY 1S30-E T26
D205	ED-387820J	D ZENER H HZS9A2L
D206	ED-387820J	D ZENER H HZS9A2L
D207	ED-387820J	D ZENER H HZS9A2L
D208	ED-387820J	D ZENER H HZS9A2L
IC1	EI-435218N	IC LA4905
IC2	EI-435218N	IC LA4905
IC201	EI-432840N	IC NJM2177AFB3
IC202-A	EI-436224J	IC MC14052BFR2 FPR T32P 8MM WIDTH,PRINTED AS MC14052B ON THE BODY

Ref. No.	Part No.	Description
IC202-B	EI-435747N	IC MC14052BDR2 FP T16E 6MM WIDTH,PRINTED AS 14052B ON THE BODY
IC203	EI-353750N	IC NJM4558MB T1 T1T32P
IC204	EI-353750N	IC NJM4558MB T1 T1T32P
IC205	EI-435769N	IC TC9412AP
IC206	EI-435769N	IC TC9412AP
IC207	EI-432902N	IC M65843FP
L1	EO-435799N	COIL FIX 2 TC-1234-46
L11	EO-435799N	COIL FIX 2 TC-1234-46
L101	EO-437197N	COIL LF CM05RB01 [EXCEPT EA]
L102	EO-437197N	COIL LF CM05RB01 [EXCEPT EA]
L103	EO-437197N	COIL LF CM05RB01 [EXCEPT EA]
L201	EO-345995N	COIL FIX 1 EL0606RA T05 101J
L203	EO-345995N	COIL FIX 1 EL0606RA T05 101J
L204	EO-345995N	COIL FIX 1 EL0606RA T05 101J
L208	EO-345995N	COIL FIX 1 EL0606RA T05 101J
L209	EO-345995N	COIL FIX 1 EL0606RA T05 101J
P2	EJ-434181N	SOCKET 10FE-BT-VK-N 10P
TM1	EJ-435674N	TERMINAL PU.CJ9034-07-0200 8P
TR1	ET-435793N	TR 2SC4596 F
TR2	ET-435793N	TR 2SC4596 F
TR3	ET-416933N	TR C.2SD601A R,S TXT08E
TR4	ET-416933N	TR C.2SD601A R,S TXT08E
TR5	ET-416933N	TR C.2SD601A R,S TXT08E
TR6	ET-416933N	TR C.2SD601A R,S TXT08E
TR201	ET-433976N	TR C.DTA114TKA T146T08E
TR202	ET-433976N	TR C.DTA114TKA T146T08E
TR203	ET-430868N	TR C.DTC114EKA T146T08E
TR204	ET-430868N	TR C.DTC114EKA T146T08E
TR207	ET-430868N	TR C.DTC114EKA T146T08E
TR208	ET-430868N	TR C.DTC114EKA T146T08E
TR209	ET-429897N	TR C.DTC144EKA T146T08E
X201	EI-427639J	OSC CE CSA2.00MG 2.000MHZ

12. OPERATION P.C. BOARD

Ref. No.	Part No.	Description
D101	ED-307573N	D SILICON H 1SS131T-77 T26
D102	ED-307573N	D SILICON H 1SS131T-77 T26
D103	ED-307573N	D SILICON H 1SS131T-77 T26
D104	ED-307573N	D SILICON H 1SS131T-77 T26
D105	ED-307573N	D SILICON H 1SS131T-77 T26
D106	ED-427719N	D ZENER H MTZJ9.1A T26
FL101-A	EM-429960N	IND FL FIP10CCM7A CHARACTER [EXCEPT SEG]
FL101-B	EM-429961N	IND FL FIP10CDM7A CHARACTER [SEG]
PH101	ET-428361N	DETECTOR GP1U281X
P101	EJ-435405N	SOCKET 00 6216 015 110A 15P
P102	EJ-435405N	SOCKET 00 6216 015 110A 15P
SW101	ES-414593N	SW TACT SOR-142HS T05
SW102	ES-414593N	SW TACT SOR-142HS T05
SW103	ES-414593N	SW TACT SOR-142HS T05
SW104	ES-414593N	SW TACT SOR-142HS T05
SW105	ES-414593N	SW TACT SOR-142HS T05
SW106	ES-414593N	SW TACT SOR-142HS T05
SW107	ES-414593N	SW TACT SOR-142HS T05
SW108	ES-414593N	SW TACT SOR-142HS T05
SW109	ES-414593N	SW TACT SOR-142HS T05
SW110	ES-414593N	SW TACT SOR-142HS T05
TR101	ET-364645N	TR DTC143ES T05
TR102	ET-364645N	TR DTC143ES T05

13. FRONT P.C. BOARD

Ref. No.	Part No.	Description
D31	ED-307573N	D SILICON H 1SS131T-77 T26
D32	ED-307573N	D SILICON H 1SS131T-77 T26
L31	EO-422487N	COIL FIX 1 LF-5.0S T26 101J
PJ1-A	EJ-428007N	PIN J JPJ2022-01-040 YELLOW 1P [EA]
PJ1-B	EJ-422356N	PIN J JPJ4022-01-040 1P [EXCEPT EA]
PJ2-A	EJ-428006N	PIN J JPJ2022-01-030 WHITE 1P [EA]
PJ2-B	EJ-396453N	PIN J JPJ5022-01-030 1P [EXCEPT EA]
PJ3-A	EJ-428008N	PIN J JPJ2022-01-020 RED 1P [EA]
PJ3-B	EJ-396452N	PIN J JPJ5022-01-020 1P [EXCEPT EA]
P4-A	EJ-433105N	SOCKET 00 6216 007 110 7P [EA]
P4-B	EJ-433106N	SOCKET 00 6216 009 110 9P [EXCEPT EA]
TR1	ET-392663N	TR 2SC1740S R,S T05
TR11	ET-392663N	TR 2SC1740S R,S T05
TR21	ET-392663N	TR 2SC1740S R,S T05

14. POWER P.C. BOARD

Ref. No.	Part No.	Description
C1	⚠ EC-435805N1	C MMY V CUT MKTR40 334M 275AC
C2	⚠ EC-435805N1	C MMY V CUT MKTR40 334M 275AC
C4	⚠ EC-435500N	C CE V CUT CS11 E222M 250AC [EK]
C5	⚠ EC-435500N	C CE V CUT CS11 E222M 250AC
C6	⚠ EC-435500N	C CE V CUT CS11 E222M 250AC
C7	⚠ EC-435500N	C CE V CUT CS11 E222M 250AC [EK]
C8	⚠ EC-435500N	C CE V CUT CS11 E222M 250AC
C9	⚠ EC-435500N	C CE V CUT CS11 E222M 250AC
C10	EC-422104N	C EC V CUT USW18 820M 400.0DC
D1	⚠ ED-418622N	D SILICON 1N4006N02 T05 800/1A
D2	⚠ ED-418622N	D SILICON 1N4006N02 T05 800/1A
D3	⚠ ED-418622N	D SILICON 1N4006N02 T05 800/1A
D4	⚠ ED-418622N	D SILICON 1N4006N02 T05 800/1A
D5	ED-427506N	D SILI.ERA22-10 T26 1000/0.5A
D7	ED-307573N	D SILICON H 1SS131T-77 T26
D20	ED-428162N	D SCHOTTKY 1S30-E T26
D21	ED-428420N	D SILICON RL103F-N02T05 200/1A
D22	ED-418624N	D SCHOTTKY RK39LF-B2 S12
D23	ED-435459N	D SCHOTTKY ERC84-009J11 S15
D24	ED-435478N	D SCHOTTKY ERC81-004J10 S12
D25	ED-428420N	D SILICON RL103F-N02T05 200/1A
D26	ED-435197N	D SILICON YG912S2
D27	ED-422420J	D ZENER H MTZJ20C T26
FR1	⚠ ER-435803N	R FUSE V T05RF25SVTP 1/4W 8R2J
FR2	⚠ ER-408829N	R FUSE V T05 RF25SCVTP1/4WR11K
FR3	⚠ ER-408829N	R FUSE V T05 RF25SCVTP1/4WR11K
F1	⚠ EF-428341N	FUSE 215 T 250V 2.00A
IC1	EI-422128N	IC TA76431S T05
L1	⚠ EO-428349N	COIL LF UF1922C4-152Y1R5-01
L2	⚠ EO-435406N	COIL LF HR-28A-253
L3	EO-422134N	COIL FIX 2 PC7-330K 330K
L4	EO-435201N	COIL FIX 2 TSL1315S 330K
L5	EO-422134N	COIL FIX 2 PC7-330K 330K
PH1	⚠ ET-422113N	PHOTO COUPLER PS2561-1-V
P1	⚠ EJ-435198N1	SOCKET INLET M1929 2P
R1	⚠ ER-435409N	R CT P BGR3N 3W 3R3K
R6	ER-435663N	R OMF H S20 FS RSS3 3W 683J
R7	ER-435664N	R OMF V F05 FS RSS3U 3W 683J
R8	ER-422512N	R OMF H S15 FS ERG2SH 2W 151J
R10	⚠ ER-435204N	R OMF V T05 FS ERX1SE 1W R24J
R19	⚠ ER-435664N	R OMF V F05 FS RSS3U 3W 683J
TR1	⚠ ET-435458N	TR FET 2SK2147-01R-F70R
TR2	⚠ ET-401091J	TR 2SD2144S U,V,W T05
TR3	ET-401091J	TR 2SD2144S U,V,W T05
T1	⚠ BT-435200N	TRANS POW V1244-M

15. D-NICAM P.C. BOARD (EK,EOH,SEG)

Ref. No.	Part No.	Description
D1	ED-427173N	D VARACTOR MA840-B(TA) T26
D2	ED-307573N	D SILICON H 1SS131T-77 T26
FL101	EH-394947N	FILTER CE SFT5.74MA [EOH]
FL102	EH-394948N	FILTER CE SFT5.5MA [EOH]
FL201	EH-422489N	FILTER CE SAF33.0MDA70Z [SEG]
IC1	EI-433060N	IC SAA7283GP
IC2	EI-403306N	IC NJM4558L
IC3	EI-403306N	IC NJM4558L
IC101	EI-389644N	IC BA403 [EOH]
IC102	EI-389644N	IC BA403 [EOH]
IC103	EI-416611N	IC TDA8417 [EOH]
IC201	EI-394868N	IC UPC1820CA [SEG]
L1	EO-389412N	COIL FIX 1 LAV35VB007 T05 101J
L2	EO-435254N	COIL FIX 1 EL0606RA T05 6R8J
L3	EO-389412N	COIL FIX 1 LAV35VB007 T05 101J
L4	EO-389412N	COIL FIX 1 LAV35VB007 T05 101J
L5	EO-422481N	COIL FIX 1 LF-5.0S T26 220J
L101	EO-422488N	COIL FIX 1 LF-5.0S T26 100J [EOH]
L102	EO-422488N	COIL FIX 1 LF-5.0S T26 100J [EOH]
L103	EO-422488N	COIL FIX 1 LF-5.0S T26 100J [EOH]
L201	EO-345978N	COIL FIX 1 EL0606RA T05 100J [SEG]
L202	EO-345978N	COIL FIX 1 EL0606RA T05 100J [SEG]
TR101	ET-392663N	TR 2SC1740S R,S T05 [EOH]
TR102	ET-392663N	TR 2SC1740S R,S T05 [EOH]
TR201	ET-368108N	TR 2SC2926S P,Q T05 [SEG]
TR202	ET-392663N	TR 2SC1740S R,S T05 [SEG]
TR203	ET-392663N	TR 2SC1740S R,S T05 [SEG]
TR204	ET-361961N	TR DTC144ES T05 [SEG]
TR205	ET-361961N	TR DTC144ES T05 [SEG]
VL101	EO-435766N	COIL TUN1 JPS 372 S-FM DET5.74 [EOH]
VL102	EO-435248N	COIL TUN1 JPS-110 M-FM DET5.5 [EOH]
VL201	EO-435765N	COIL TUN1 JPS-079 VCO 1820 [SEG]
VR101	EV-397433N	R S-FIX H T05EVNDXAA03 0.1W152 [EOH]
X1	EI-433914N	OSC X'TAL APS1026 8.192MHZ
X101	EI-425185N	OSC X'TAL ASP1006 10.000MHZ [EOH]
X201	EI-394870N	OSC CE CSB500F23 504.5KHZ [SEG]

16. FINAL ASSEMBLY BLOCK

Ref. No.	Part No.	Description
1-A	SP-435861N	COVER UPPER EX(H)FLAT PLATE(SG) [EXCEPT EOG]
1-B	SP-436545N	COVER UPPER EX(H)2 FLAT PLATE [EOG]
2	ZS-393515N	BT BID30X10STL BZN (SG)
3	ZS-426416N	BT PAN30X10STL CMT C080 (SG)
4	ZS-323728N	BID30X05STL CMT (SG)
5-A	SP-435839N	PANEL REAR DPL EA-D (SG)
5-B	SP-435840N	PANEL REAR DPL EK-N (SG)
5-C	SP-435841N	PANEL REAR DPL EOH-DN (SG)
5-D	SP-435842N	PANEL REAR DPL EOG-D (SG)
5-E	SP-435843N	PANEL REAR DPL SEG-N (SG)
6	ZS-426412N	BT BID30X10STL CMT (SG)
7	EW-435709N	CORD EX FFC DPL-IO L155 10P [DPL TO IN-OUT]
8	EW-435638N	CORD EX FFC MA-IO L70 15P [MAIN TO IN-OUT]
9	EW-435806N	CORD FFC BD DM L110 7P [MAIN TO DRUM MOTOR]
10	ZS-376521N	BT BID30X08STL CMT (SG)
11	EW-434533N	CORD FFC BD P1.25 L160 15P [MAIN TO OPERATION]
12-A	EW-433150N1	CORD FFC BD P1.25 L160 7P [MAIN TO FRONT,EA]
12-B	EW-434534N	CORD FFC BD P1.25 L160 9P [MAIN TO FRONT,EXCEPT EA]
13-A	⚠ EW-425599N	AC CORD 200S CW2101CW4771 B S [EA]
13-B	⚠ EW-436245N	AC CORD 200S SF628 SF201 B [EK]
13-C	⚠ EW-430842N	AC CORD 200S SF200 SF201 E [EXCEPT EA,EK]
14	SA-422907N	FOOT AX (SG)
15-A	BD-435878N	PANEL F(E)G2DPL EA-D PART (SG)
15-B	BD-435858N	PANEL F(E)G2DPL EK-N PART (SG)
15-C	BD-435859N	PANEL F(E)G2DPL EOH-DN PART(SG)
15-D	BD-435860N	PANEL F(E)G2DPL EOG-D PART(SG)
15-E	BD-435875N	PANEL F(E)G2DPL SEG-N PART(SG)
16	ZG-429541N	SP MASK(4) (SG)
17-A	SE-435908N	MASK CASSETTE VS-G2DPL(E1)(SG) [EA]
17-B	SE-435909N	MASK CASSETTE VS-G2DPL(E2)(SG) [EK,EOH]
17-C	SE-435910N	MASK CASSETTE VS-G2DPL(G1)(SG) [EOG]
17-D	SE-435911N	MASK CASSETTE VS-G2DPL(F1)(SG) [SEG]
18-A	SE-435879N	DOOR JACK(E)E (SG) [EA,EK,EOH]
18-B	SE-435880N	DOOR JACK(E)G (SG) [EOG]
18-C	SE-435881N	DOOR JACK(E)F (SG) [SEG]

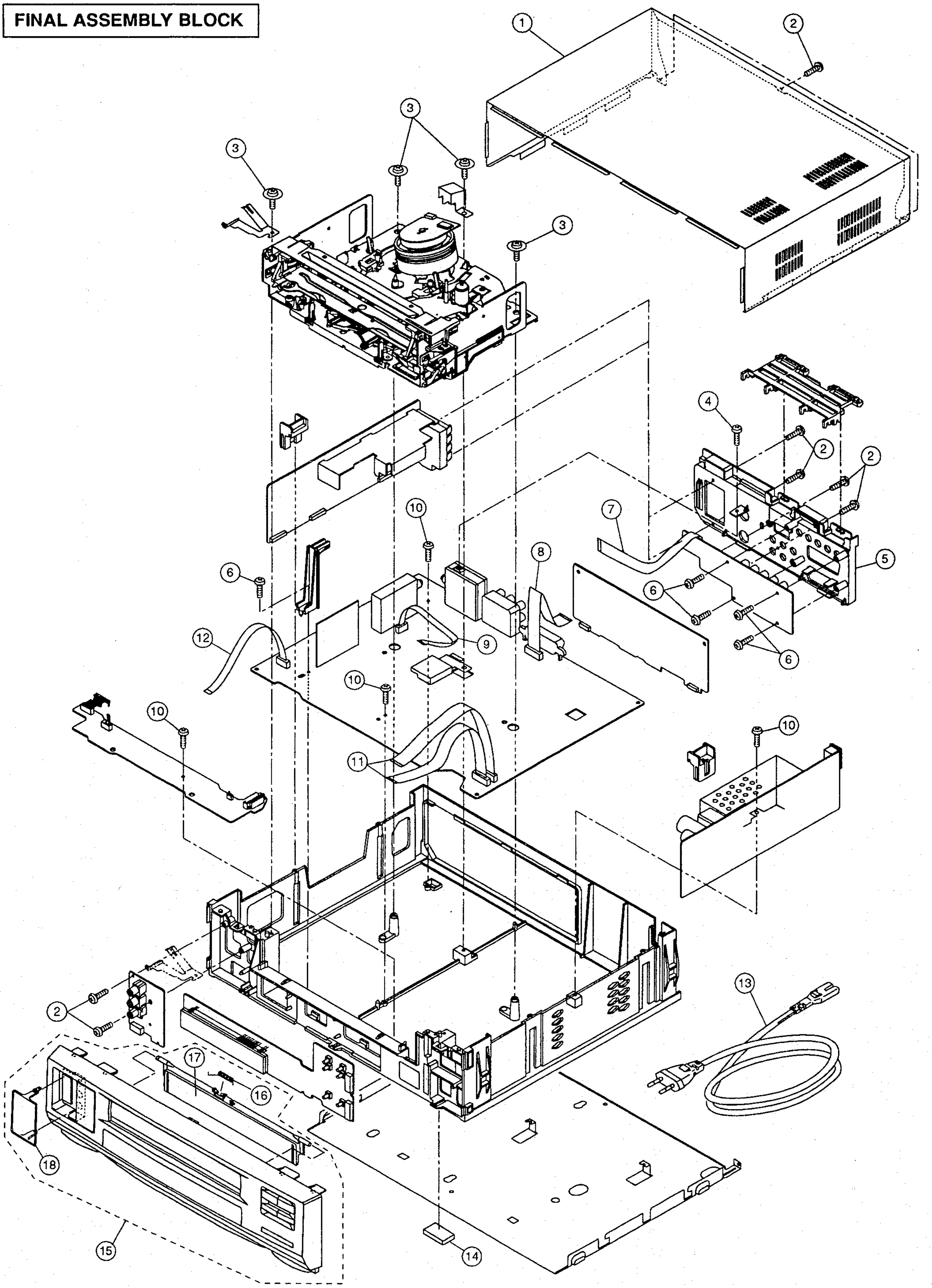
NOTE :

Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

17. ACCESSORY

Ref. No.	Part No.	Description
1	EW-348414N	CORD PAL [EXCEPT SEG]
2	AV-348415N	CORD SECAM [SEG]
3	EW-427525N	CORD 21PIN AV CABLE [SEG]
4-A	AV-435447N	REMOCON RC-Y137E [EA]
4-B	AV-435443N	REMOCON RC-Y117E [EK]
4-C	AV-435444N	REMOCON RC-Y127E [EOH]
4-D	AV-435446N	REMOCON RC-Y127G [EOG]
4-E	AV-435445N	REMOCON RC-Y127F [SEG]
5-A	SP-733750N	LID AX G-CODE-2 [EA]
5-B	SP-733722N	LID AX VIDEO PLUS-1 [EK]
5-C	SP-733723N	LID AX SHOWVIEW-1 [EOH,EOG,SEG]
6	SC-733720N1	COVER BATTERY (GX)

FINAL ASSEMBLY BLOCK



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ABBREVIATIONS (VIDEO)

ABBREVIATION	EXPLANATION
A	Audio orAnalogue
AC	Alternating Current
ACC	Automatic Color Control
A/C	Audio and Control
ADJ	ADJust (ment)
AFC	Automatic Frequency Control
AFT	Automatic FineTuning
AGC	Automatic Gain Control
AH	Audio Head
AL	ALways (voltage)
ALC	Automatic Level Control
A-SW.P	Audio SWitching Pulse
A-MUTE	Audio MUTE
ANT	ANTenna
APC	Automatic Phase Control
ASSY	ASSemblY
BAL	BALance
B DOWN	Break DOWN
BGP	Burst Gate Pulse
BLK	BLocK or BLacK
BOP	Blank Output Pulse
BPF	Band Pass Filter
BU	Back Up (voltage)
B/W	Black and White
C	Chroma or Color
CCD	Charge Coupled Device
CCIR	Comit Consultatif International des Radio communications
CH (ch)	CHannel (channel)
CLK	CLocK
CM	Capstan Motor
CN	CoNnector
COMP	COMParator
CSW	Cassette SWitch
CSYNC	Composite SYNC
CTL	ConTrol
CUE	CUE
DAC	Digital to Analog Converter
DC	Direct Current
DEMOD	DEMODulator
DET	DETetct (DETector)
DL	Delay Line
DM	Drum Motor
DOC	Drop Out Compensator
D.P.E	Drum Phase Error
D.PG	Drum Pulse Generator
EE	Electronic to Electronic
EF	Emitter Follower
EMPHA	EMPHAsis
ENV	ENVelope
EP	Extended Play
EP ROM	Erasable Programmable ROM
EQ	EQualizer
FE	Full track Erase
FF	Flip-Flop or Fast Foward
FG	Frequency Generator
Fig	Figure
FLD	FLuorescent Display
FM	Frequency Modulation
Fo	resonance Frequency
FREQ	FREQuency
GND	GrouND
H	Horizontal
HP	Horizontal (sync) pulse
HPF	High Pass Filter
HQ	High Quality System
IC	Integrated Circuit
ID	IDentification
IDL	IDLe (Voltage)
IMS	Interactive Monitor System
INS	INSert
INV	INVerter
L	Left
LED	Light Emitting Diode
LIM	LIMitter
LM	Loading Motor
LM STP	Loading Motor STop
LP	Long Play
LPF	Low Pass Filter
ME-SECAM	Middle East SECAM
MI-COM	MIcro COMputer
MM	Mono-stayble Multi
MOD	MODulator
MRS	Motor ReverSe
NAP	NtscAmusement Pal
NG	Noise Gate
NICAM	Near Instanteneous CompandAudio Multiplex
NON-LIN	NON-LINear
N.T.S.C.	National Television System Committee
OSC	OSCillator
PAL	Phase Alternation by Line
PB	Play Back
PCB (P.C.B)	Printed Circuit Board
P-COM	Phase-COMparator
P DOWN	Power DOWN
PG	Pulse Generator
P.I.P	Picture In Picture
PL, PLG	PLunger (PLunGer)
PRG (PGM)	PRoGram (ProGraM)
PU	Pick UP (head, pulse)
PWR	PoWeR
Q	Quality factor
R	Right
RAM	RandomAccess Memory
REC	RECord
REF	REFerence
REF-V	REFerence Vertical signal
REG	REGulator
REV (REVW)	REView (REVieW)
REW	REWind
RF	Radio Frequency
ROM	Read Only Memory
R.S SW	Record-Safety SWitch
RST (RES)	ReSet (RESet)
RVS	ReVerSe
S	Sensor, Shield
SAW	SurfaceAcoustic Wave
SC	SimulCast
S CLK	Serial CLocK
SECAM	SÉquentiel Couleur À Mémoire
S & H	Sample and Hold
SLP	Super Long Play
SP	Standard Play
SPD	SPeeD
SRP	Supply Reel Pulse
SRV	SeRVo
SOW	Sync On Word
STBY	STandBY
S.VHS	Super VHS
SW	SWitch
SW'NG	SWitchiNG
SWP	SWitching Pulse
SYNC	SYNChronize
T-AUDIO	TunerAUDIO
TPZ (TRAPE)	TraPeZoid (TRAPEzoid)
TRK	TRacKing
TRP	Take up Reel Pulse
T/U	Take Up
TV	TeleVision
UHF	Ultra High Frequency
UNR	UNRegulated (voltage)
V	Vertical or Video
VASS	Video Address Search System
VCO	Voltage Controlled Oscillator
VH	Video Head
VHF	Very High Frequency
VHS	Video Home System
VIF	Video Intermediate Frequency
VISS	Video Index Search System
VJ	Video Judge
VM	Voltage for Memory
VOB	Video On Blank
VOW	Video On Word
VP	Vertical (sync) Pulse
VPS	Video Program System
VPT	Video Programming by video Text
VT	Voltage for Tuning
WHT	WHiTe
Y	Luminance
2H	2 Hour (SP)
4H	4 Hour (LP)
6H	6 Hour (SLP/EP)

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MODEL VS-G2DPL EA-D/EK-N/EOG-D/ EOH-DN/SEG-N

SCHEMATIC DIAGRAMS AND PC BOARDS

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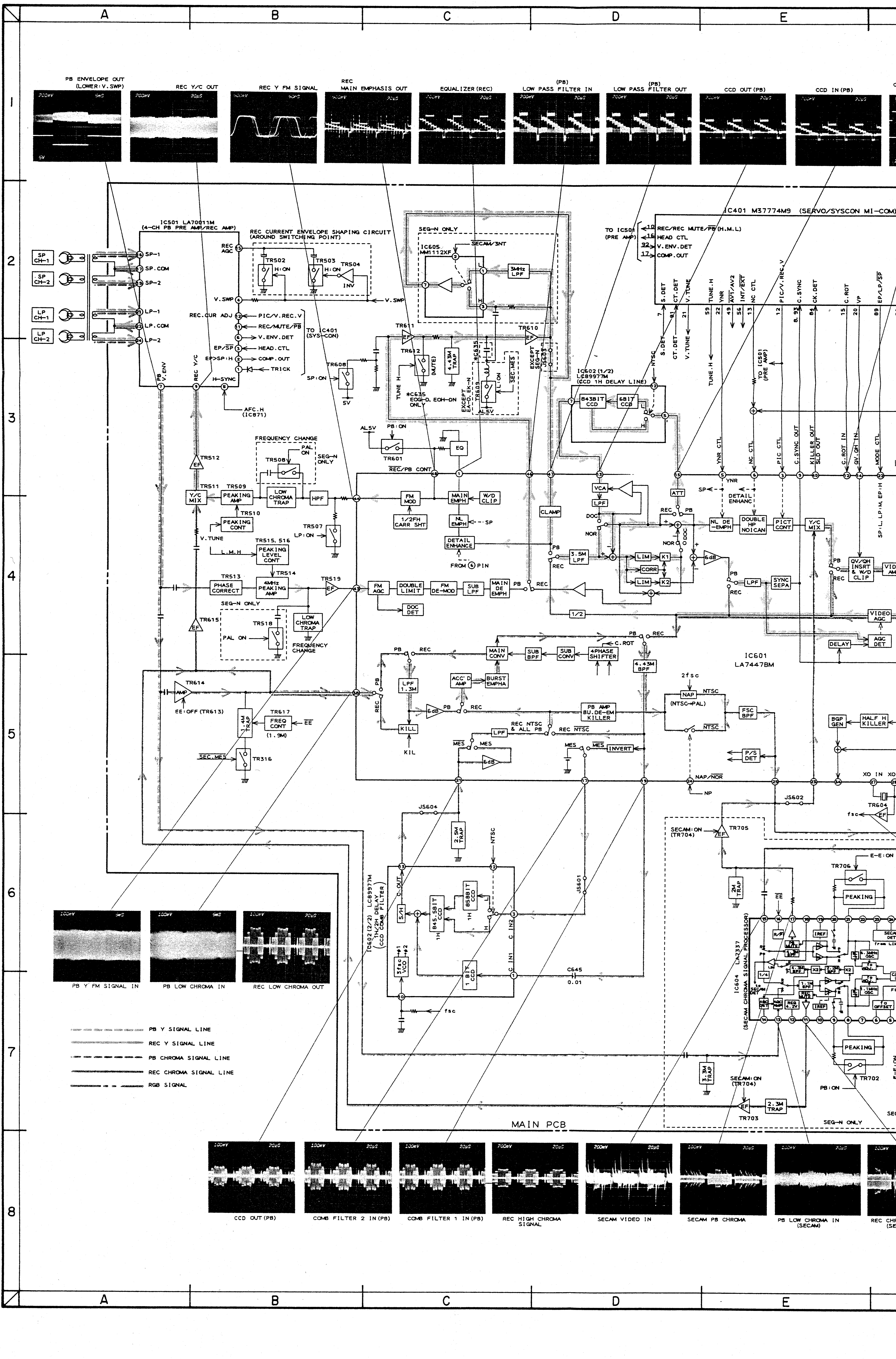
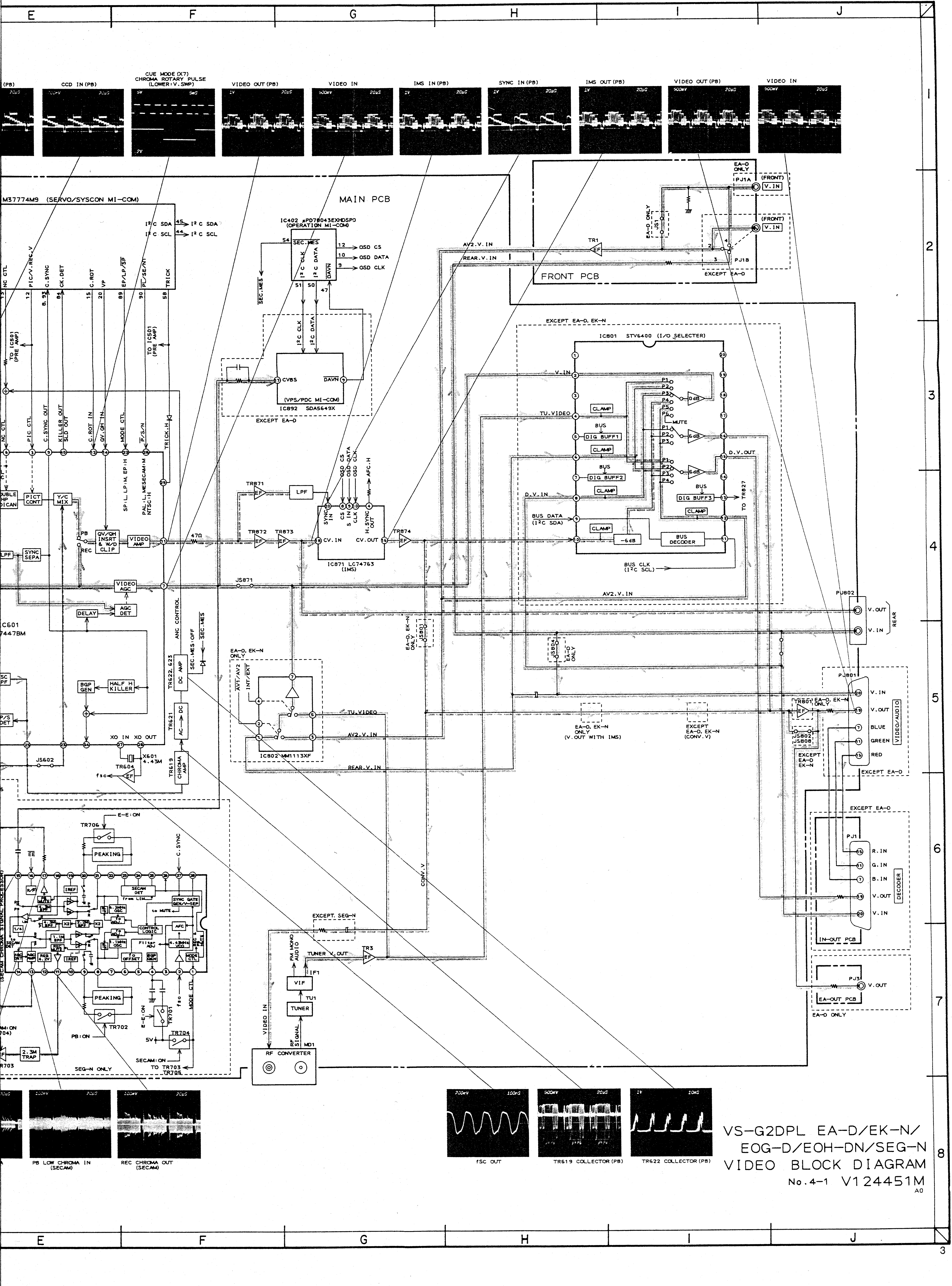
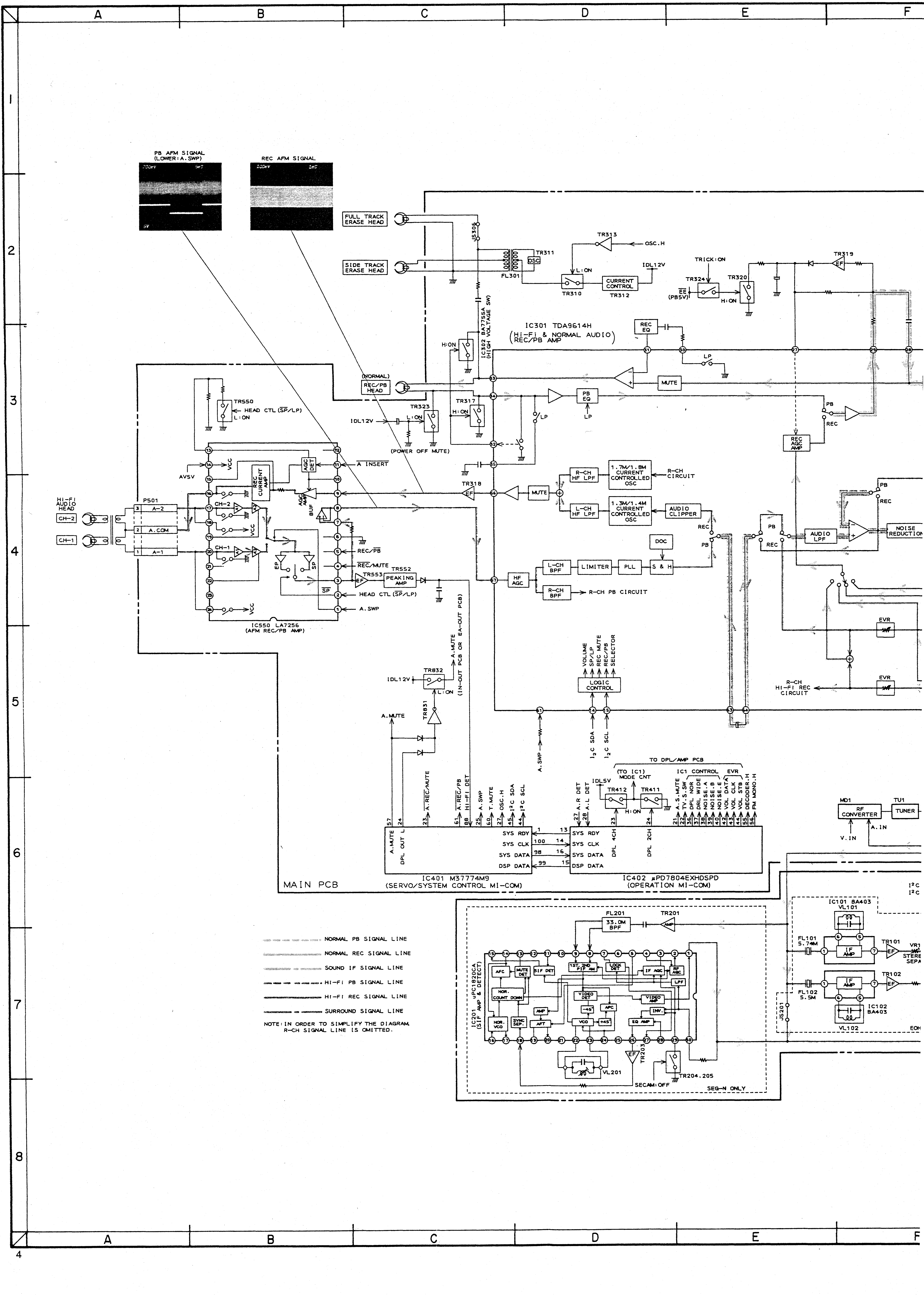
Use these schematic diagrams and PC boards together with the provided service manual.


A
B
C
D
E
1
2
3
4
5
6
7
8
PB ENVELOPE OUT (LOWER: V.SWP)
REC Y/C OUT
REC Y FM SIGNAL
REC MAIN EMPHASIS OUT
EQUALIZER (REC)
(PB) LOW PASS FILTER IN
(PB) LOW PASS FILTER OUT
CCD OUT (PB)
CCD IN (PB)
IC501 LA70011M (4-CH PB PRE AMP/REC AMP)
SP CH-1
SP CH-2
LP CH-1
LP CH-2
SP-1
SP.COM
SP-2
LP-1
LP.COM
LP-2
REC AGC
REC CURRENT ENVELOPE SHAPING CIRCUIT (AROUND SWITCHING POINT)
TR502
TR503
TR504
H: ON
INV
V.SWP
REC.CUR ADJ
PIC/V.REC.V
REC/MUTE/PB
V.ENV.DET
HEAD.CTL
COMP.OUT
TRICK
EP/SP
EP>SP:H
TO IC401 (SYS-CON)
PB V.ENV
REC Y/C
H-SYNC
AFC.H (IC871)
SEG-N ONLY
IC605 MM1112XF
SECAM/3NT
3MHz LPF
TR611
TR612
TR610
(MUTE)
4.43M TRAP
TUNE H
*C635 EOG-D, EOH-DN ONLY
EXCEPT EA-D, EK-N TR609
*C635
SEC.MES
AL5V
EXCEPT SEG-N JS603
TR608
SP: ON
5V
IC401 M37774M9 (SERVO/SYSCON MI-COM)
TO IC501 (PRE AMP)
REC/REC MUTE/PB (H.M.L)
HEAD CTL
V.ENV.DET
COMP.OUT
S.DET
CT.DET
V.TUNE
TUNE.H
YNR
AV1/AV2
INT/EXT
NC CTL
PIC/V.REC.V
C.SYNC
CK.DET
C.ROT
VP
EP/LP/SP
IC602 (1/2) LC89977M (CCD 1H DELAY LINE)
843BIT CCD
6BIT CCD
NTSC
TO IC501 (PRE AMP)
FREQUENCY CHANGE
PAL ON
SEG-N ONLY
TR508
TR512
EF
TR511
TR509
Y/C MIX
PEAKING AMP
LOW CHROMA TRAP
HPF
TR510
PEAKING CONT
V.TUNE
TR507
LP: ON
TR515, 516
PEAKING LEVEL CONT
L.M.H
AL5V
PB: ON
TR601
EQ
REC/PB CONT
FM MOD
1/2FH CARR SHT
MAIN EMPH
W/D CLIP
NL EMPH
SP
DETAIL ENHANCE
FROM 6 PIN
CLAMP
VCA
LPF
DOC
NOR
3.5M LPF
LIM
K1
CORR
K2
6dB
ATT
REC
PB
NL DE-EMPH
DOUBLE HP NOICAN
PICT CONT
Y/C MIX
YNR CTL
NC CTL
PIC CTL
C.SYNC OUT
KILLER OUT SLD OUT
C.ROT IN
QV, QH IN
MODE CTL
SP: L, LP: M, EP: H
DETAIL ENHANC
SYNC SEPA
QV/QH INSRT & W/D CLIP
TR513
PHASE CORRECT
TR514
4MHz PEAKING AMP
TR519
FM AGC
DOUBLE LIMIT
FM DE-MOD
SUB LPF
MAIN DE EMPH
DOC DET
1/2
VIDEO AGC
AGC DET
DELAY
TR518
PAL ON
LOW CHROMA TRAP
FREQUENCY CHANGE
TR615
TR614
AMP
EE: OFF (TR613)
1.4M TRAP
TR617
FREQ CONT (1.9M)
EE
SEC.MES
TR316
MAIN CONV
SUB BPF
SUB CONV
4PHASE SHIFTER
C.ROT
4.43M BPF
LPF 1.3M
ACC'D AMP
BURST EMPHA
6dB
KILL
KIL
PB AMP BU.DE-EM KILLER
REC NTSC & ALL PB
REC NTSC
MES
INVERT
IC601 LA7447BM
2fsc
NAP
(NTSC→PAL)
FSC BPF
P/S DET
NAP/NOR
NP
BGP GEN
HALF H KILLER
XO IN
JS602
TR604
fsc
JS604
2.5M TRAP
IC602 (2/2) LC89977M (1H/2H DELAY) (CCD COMB FILTER)
C-OUT
S/H
845.5BIT CCD
858BIT CCD
1H
C IN2
C IN1
1 BIT CCD
3fsc VCO
JS601
C645 0.01
fsc
SECAM: ON (TR704)
TR705
E-E: ON
TR706
PEAKING
2H TRAP
EE
IC604 LA7337 (SECAM CHROMA SIGNAL PROCESSOR)
3.3M TRAP
SECAM: ON (TR704)
TR703
2.3M TRAP
TR702
PB: ON
SEG-N ONLY
MAIN PCB
PB Y FM SIGNAL IN
PB LOW CHROMA IN
REC LOW CHROMA OUT
CCD OUT (PB)
COMB FILTER 2 IN (PB)
COMB FILTER 1 IN (PB)
REC HIGH CHROMA SIGNAL
SECAM VIDEO IN
SECAM PB CHROMA
PB LOW CHROMA IN (SECAM)

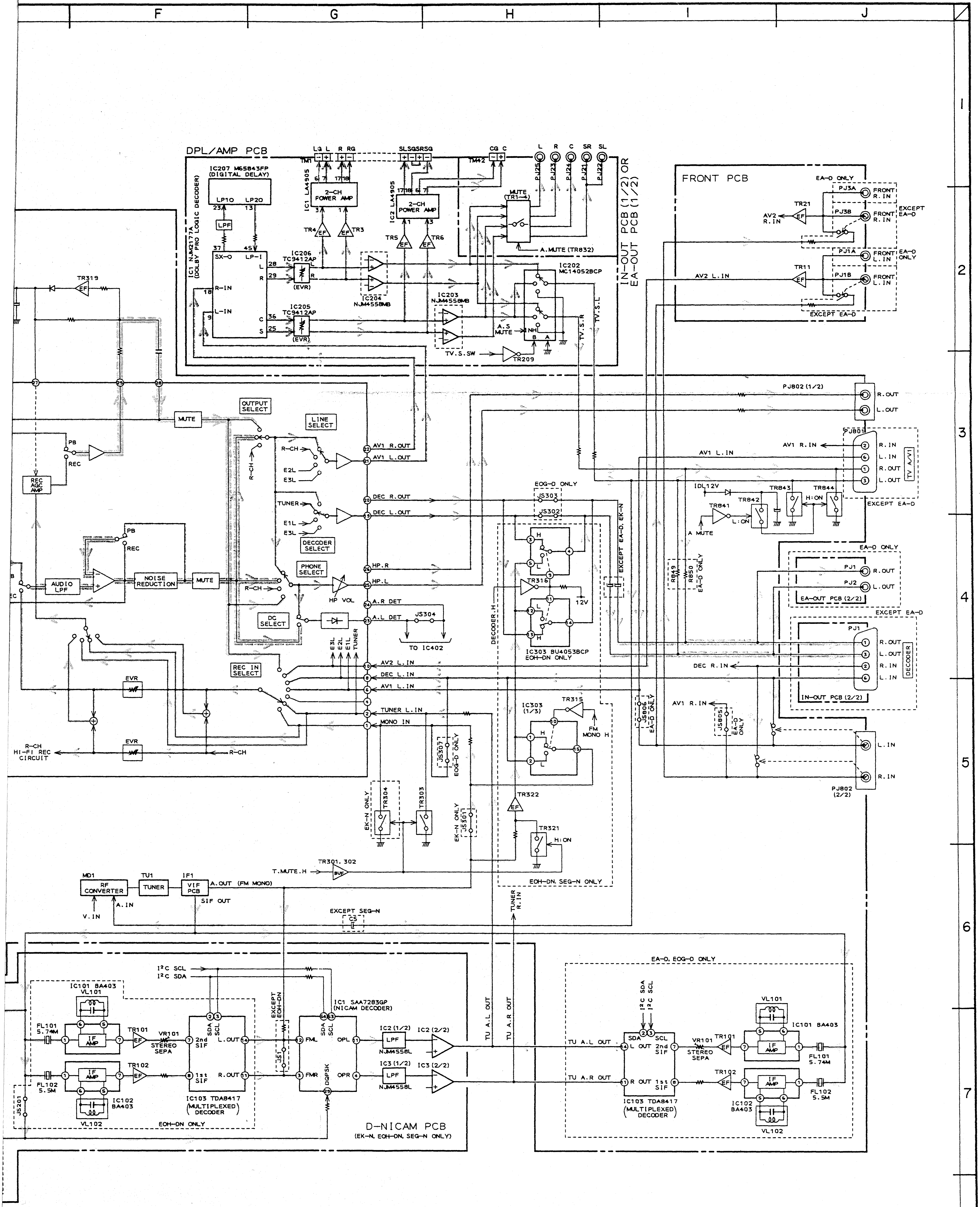
PB Y SIGNAL LINE
REC Y SIGNAL LINE
PB CHROMA SIGNAL LINE
REC CHROMA SIGNAL LINE
RGB SIGNAL


E
F
G
H
I
J
1
2
3
4
5
6
7
8
CCD IN (PB)
CUE MODE (X7)
CHROMA ROTARY PULSE
(LOWER: V.SWP)
VIDEO OUT (PB)
VIDEO IN
IMS IN (PB)
SYNC IN (PB)
IMS OUT (PB)
VIDEO OUT (PB)
VIDEO IN
MAIN PCB
M37774M9 (SERVO/SYSCON MI-COM)
I²C SDA
I²C SCL
IC402 μPD78043EXHDSPD
(OPERATION MI-COM)
SEC.MES
OSD CS
OSD DATA
OSD CLK
I²C CLK
I²C DATA
DAVN
CVBS
(VPS/PDC MI-COM)
IC892 SDA5649X
EXCEPT EA-D
FRONT PCB
EA-D ONLY
PJ1A
(FRONT)
V.IN
JS1
PJ1B
EXCEPT EA-D
TR1
AV2.V.IN
REAR.V.IN
EXCEPT EA-D, EK-N
IC801 STV6400 (I/O SELECTER)
TU.VIDEO
CLAMP
BUS
DIG BUFF1
DIG BUFF2
DIG BUFF3
0dB
6dB
-6dB
MUTE
D.V.OUT
D.V.IN
BUS DATA
(I²C SDA)
BUS DECODER
BUS CLK
(I²C SCL)
TO TR827
TR871
TR872
TR873
TR874
LPF
SYNC IN
CS
S IN
CLK
H.SYNC OUT
AFC.H
CV.IN
CV.OUT
IC871 LC74763
(IMS)
47Ω
JS871
PJ802
V.OUT
V.IN
REAR
JS801
EA-D, EK-N ONLY
JS804
EA-D ONLY
PJ801
V.IN
V.OUT
BLUE
GREEN
RED
VIDEO/AUDIO
TR801
EA-D, EK-N ONLY
JS802
JS808
EXCEPT EA-D EK-N
EA-D, EK-N ONLY
(V.OUT WITH IMS)
EXCEPT EA-D, EK-N
(CONV.V)
PIC/V.REC.V
C.SYNC
CK.DET
C.ROT
VP
EP/LP/SP
PL/SE/N1
TRICK
TO IC501 (PRE AMP)
PIC CTL
C.SYNC OUT
KILLER OUT
SLD OUT
C.ROT IN
QV.QH IN
MODE CTL
P/S/N
TRICK.H
SP:L, LP:M, EP:H
PAL:L, MESECAM:M
NTSC:H
PICT CONT
Y/C MIX
PB
REC
QV/QH INSRT & W/D CLIP
VIDEO AMP
SYNC SEPA
VIDEO AGC
AGC DET
DELAY
IC601
BGP GEN
HALF H KILLER
XO IN
XO OUT
X601
4.43M
TR604
fsc
JS602
ANC CONTROL
SEC.MES:OFF
SEC.MES
TR622, 623
DC AMP
TR621
AC→DC
TR619
CHROMA AMP
EA-D, EK-N ONLY
AV1/AV2
INT/EXT
IC802 MM1113XF
TU.VIDEO
AV2.V.IN
REAR.V.IN
AV2.V.IN
CONV.V
EXCEPT. SEG-N
FM MONO AUDIO
TUNER V.OUT
TR3
IF1
VIF
TU1
TUNER
VIDEO IN
RF SIGNAL
MD1
RF CONVERTER
EXCEPT EA-D
PJ1
R.IN
G.IN
B.IN
V.OUT
V.IN
DECODER
IN-OUT PCB
PJ3
V.OUT
EA-OUT PCB
EA-D ONLY
E-E:ON
TR706
PEAKING
C.SYNC
EE
SECAM DET
SYNC GATE GEN/V-SEP
AFC
CONTROL LOGIC
BGP GEN
MODE CTL
PEAKING
TR702
TR701
TR704
E-E:ON
fsc
MODE CTL
PB:ON
5V
SECAM:ON
TO TR703
TR705
2.3M TRAP
SEG-N ONLY
PB LOW CHROMA IN
(SECAM)
REC CHROMA OUT
(SECAM)
fSC OUT
TR619 COLLECTOR (PB)
TR622 COLLECTOR (PB)

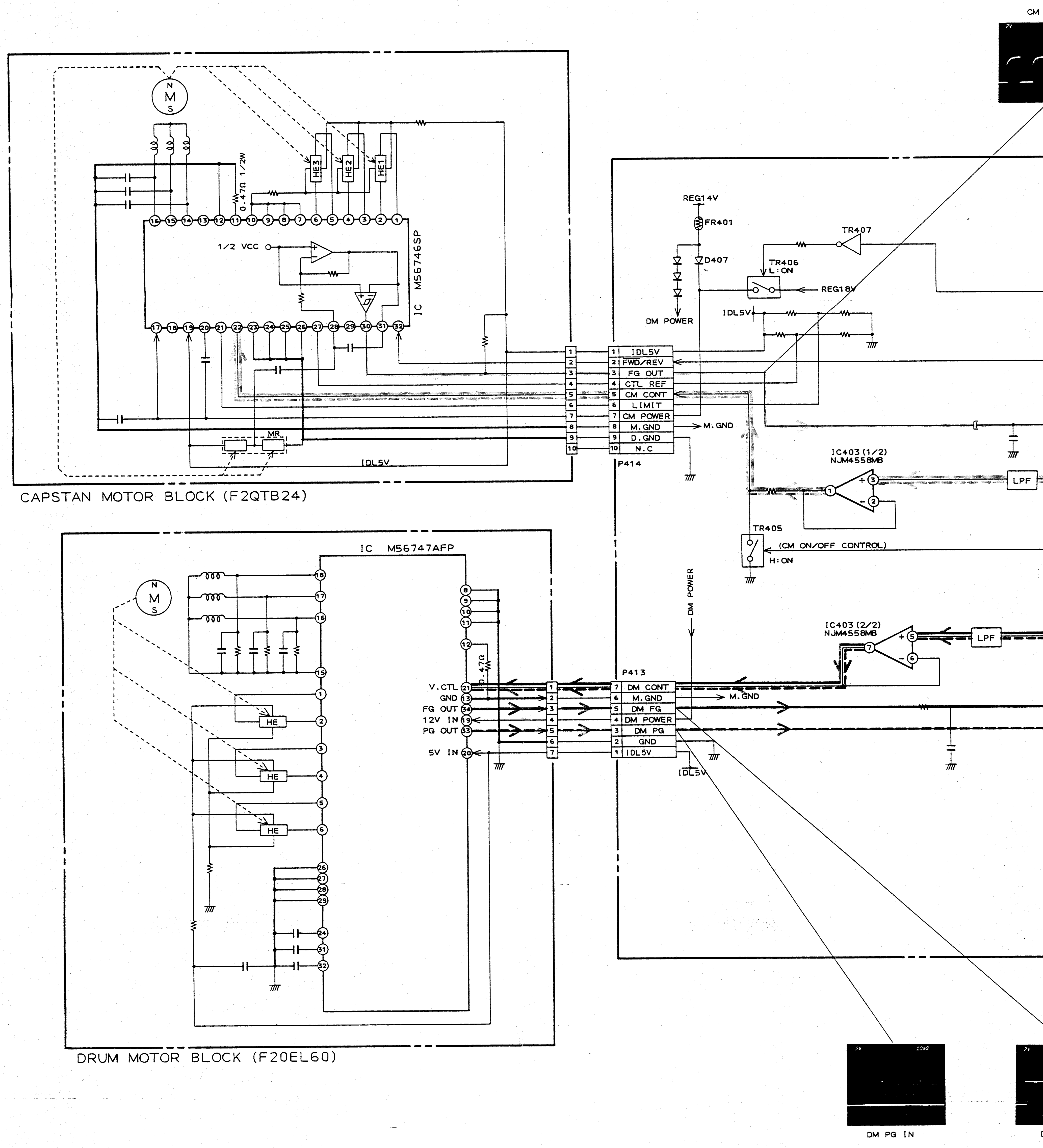
VS-G2DPL EA-D/EK-N/
EOG-D/EOH-DN/SEG-N
VIDEO BLOCK DIAGRAM
No.4-1 V124451M
A0



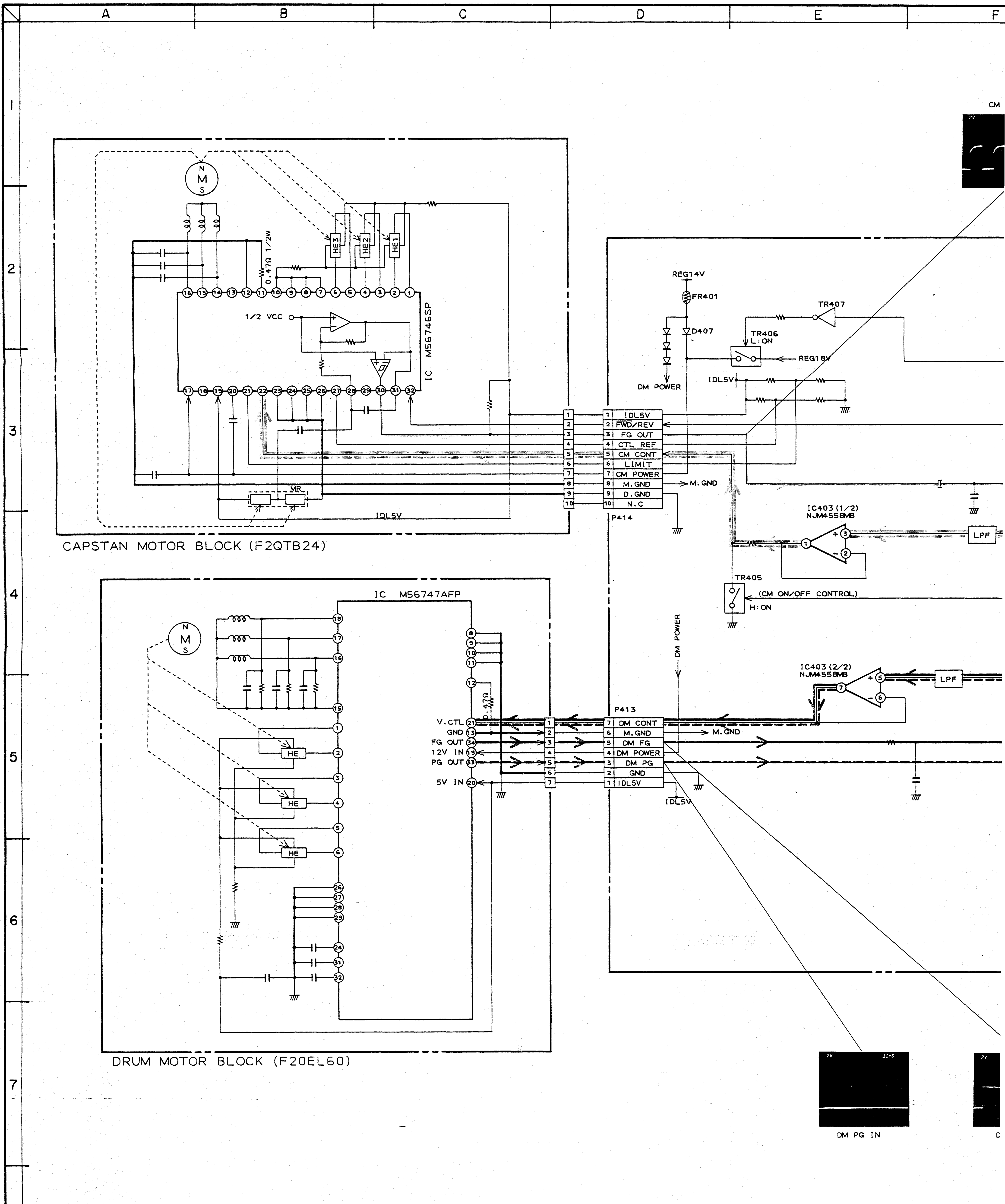
A
B
C
D
E
F
1
2
3
4
5
6
7
8
PB AFM SIGNAL (LOWER:A.SWP)
REC AFM SIGNAL
FULL TRACK ERASE HEAD
SIDE TRACK ERASE HEAD
JS306
TR311
OSC
FL301
TR313
OSC.H
L:ON
TR310
CURRENT CONTROL
TR312
IDL12V
TRICK:ON
TR324
EE (PB5V)
H:ON
TR320
TR319
EF
IC301 TDA9614H
(HI-FI & NORMAL AUDIO) REC/PB AMP
IC302 BA7755A (HIGH VOLTAGE SW)
REC EQ
LP
MUTE
PB EQ
(NORMAL) REC/PB HEAD
TR323
TR317
(POWER OFF MUTE)
PB
REC
REC AGC AMP
TR550
HEAD CTL (SP/LP)
AV5V
VCC
AGC DET
REC CURRENT AMP
AGC AMP
BUF
A INSERT
HI-FI AUDIO HEAD
CH-2
CH-1
P501
A-2
A.COM
A-1
EP
SP
REC/PB
REC/MUTE
TR552
TR553
PEAKING AMP
A.SWP
IC550 LA7256 (AFM REC/PB AMP)
TR318
R-CH HF LPF
L-CH HF LPF
1.7M/1.8M CURRENT CONTROLLED OSC
1.3M/1.4M CURRENT CONTROLLED OSC
R-CH CIRCUIT
AUDIO CLIPPER
DOC
HF AGC
L-CH BPF
LIMITER
PLL
S & H
R-CH BPF
R-CH PB CIRCUIT
AUDIO LPF
NOISE REDUCTION
EVR
R-CH HI-FI REC CIRCUIT
VOLUME
SP/LP
REC MUTE
REC/PB
SELECTOR
LOGIC CONTROL
I2C SDA
I2C SCL
TR832
IDL12V
A.MUTE
(IN-OUT PCB OR EA-OUT PCB)
TR831
A.MUTE
A.REC/MUTE
A.REC/PB
HI-FI DET
A.SWP
T.MUTE
OSC.H
I2C SDA
I2C SCL
SYS RDY
SYS CLK
SYS DATA
DSP DATA
DPL OUT L
IC401 M37774M9 (SERVO/SYSTEM CONTROL MI-COM)
TO DPL/AMP PCB
(TO IC1) MODE CNT
IC1 CONTROL
EVR
IDL5V
TR412
TR411
A.R DET
A.L DET
DPL 4CH
DPL 2CH
A.S.MUTE
TV.S.SW
DPL NOR
DRL WIDE
NOISE.A
NOISE.B
NOISE.E
VOL DATA
VOL CLK
VOL STB
DECODER.H
FM MONO.H
IC402 μPD7804EXHDSPD (OPERATION MI-COM)
MAIN PCB
MD1
RF CONVERTER
V.IN
A.IN
TU1
TUNER
FL201
33.0M BPF
TR201
AMP
IC201 uPC1820CA (SIF AMP & DETECT)
AFC
MUTE DET
SIF DET
1ST, 2ND PIF AM
LOCK DET
IF AGC
RF AGC
LPF
HOR. COUNT DOWN
VIDEO DET
APC
VIDEO AMP
AMP
-45°
+45°
VCO
INV.
AFT
EQ AMP
HOR. VCO
SYNC SEP.
TR203
EF
VL201
TR204.205
SECAM:OFF
SEG-N ONLY
IC101 BA403
VL101
FL101 5.74M
IF AMP
TR101
STERE SEPA
TR102
FL102 5.5M
JS201
IC102 BA403
VL102
EOH
I2C
NORMAL PB SIGNAL LINE
NORMAL REC SIGNAL LINE
SOUND IF SIGNAL LINE
HI-FI PB SIGNAL LINE
HI-FI REC SIGNAL LINE
SURROUND SIGNAL LINE
NOTE: IN ORDER TO SIMPLIFY THE DIAGRAM, R-CH SIGNAL LINE IS OMITTED.


F
G
H
I
J
1
2
3
4
5
6
7
DPL/AMP PCB
IC207 M65843FP (DIGITAL DELAY)
LP1O
LP2O
LPF
IC1 NJM2177A (DOLBY PRO LOGIC DECODER)
SX-O
LP-I
R-IN
L-IN
IC206 TC9412AP (EVR)
IC205 TC9412AP (EVR)
IC1 LA4905
2-CH POWER AMP
IC2 LA4905
TM1
TM42
LG L
R RG
SLSGSRSG
CG C
L R C SR SL
PJ25 PJ23 PJ24 PJ21 PJ22
IN-OUT PCB (1/2) OR EA-OUT PCB (1/2)
TR4 TR3 TR5 TR6
EF
MUTE (TR1-4)
A.MUTE (TR832)
IC204 NJM4558MB
IC203 NJM4558MB
IC202 MC14052BCP
A.S MUTE
INH
TV.S.R
TV.S.L
TV.S.SW
TR209
TR319
FRONT PCB
EA-D ONLY
PJ3A
PJ3B
FRONT R.IN
EXCEPT EA-D
AV2 R.IN
TR21
PJ1A
PJ1B
FRONT L.IN
EA-D ONLY
AV2 L.IN
TR11
EXCEPT EA-D
PJ802 (1/2)
R.OUT
L.OUT
PJ801
AV1 R.IN
AV1 L.IN
R.IN
L.IN
R.OUT
L.OUT
TV A/V1
EXCEPT EA-D
IDL12V
TR843
TR844
TR842
TR841
H:ON
L:ON
A MUTE
R849
R850
EA-D ONLY
EA-D ONLY
PJ1
PJ2
R.OUT
L.OUT
EA-OUT PCB (2/2)
EXCEPT EA-D
PJ1
R.OUT
L.OUT
R.IN
L.IN
DECODER
DEC R.IN
IN-OUT PCB (2/2)
AV1 R.IN
JS806 EA-D ONLY
JS805 EA-D ONLY
L.IN
R.IN
PJ802 (2/2)
MUTE
OUTPUT SELECT
LINE SELECT
R-CH
E2L
E3L
PB
REC
REC AGC AMP
TUNER
E1L
E3L
DECODER SELECT
AUDIO LPF
NOISE REDUCTION
MUTE
PHONE SELECT
R-CH
HP VOL
DC SELECT
REC IN SELECT
EVR
EVR
R-CH HI-FI REC CIRCUIT
R-CH
AV1 R.OUT
AV1 L.OUT
DEC R.OUT
DEC L.OUT
HP.R
HP.L
A.R DET
A.L DET
JS304
TO IC402
E3L E2L E1L TUNER
AV2 L.IN
DEC L.IN
AV1 L.IN
TUNER L.IN
MONO IN
EOG-D ONLY
JS303
JS302
EXCEPT EA-D, EK-N
DECODER.H
IC303 BU4053BCP EOH-DN ONLY
TR316
12V
H
L
IC303 (1/3)
TR315
FM MONO H
TR322
TR321
H:ON
EOH-DN, SEG-N ONLY
JS307 EOG-D ONLY
EK-N ONLY
TR304
TR303
EK-N ONLY JS301
TR301, 302
T.MUTE.H
BUF
MD1
RF CONVERTER
V.IN
A.IN
TU1
TUNER
IF1
VIF PCB
A.OUT (FM MONO)
SIF OUT
TUNER R.IN
EXCEPT SEG-N
C5
I²C SCL
I²C SDA
IC101 BA403
VL101
FL101 5.74M
IF AMP
TR101
VR101
STEREO SEPA
2nd SIF
1st SIF
SDA
SCL
L.OUT
R.OUT
FL102 5.5M
TR102
IC102 BA403
VL102
IC103 TDA8417 (MULTIPLEXED DECODER)
EOH-DN ONLY
JS201
EXCEPT EOH-DN
JS1
IC1 SAA7283GP (NICAM DECODER)
FML
FMR
DQPSK
OPL
OPR
IC2 (1/2)
IC2 (2/2)
IC3 (1/2)
IC3 (2/2)
LPF
NJM4558L
D-NICAM PCB (EK-N, EOH-DN, SEG-N ONLY)
TU A.L OUT
TU A.R OUT
EA-D, EOG-D ONLY
I²C SDA
I²C SCL
TU A.L OUT
TU A.R OUT
L OUT
R OUT
2nd SIF
1st SIF
TR101
VR101
STEREO SEPA
TR102
VL101
IC101 BA403
IF AMP
FL101 5.74M
IC102 BA403
FL102 5.5M
VL102
IC103 TDA8417 (MULTIPLEXED DECODER)
F
G
H
I
J
8

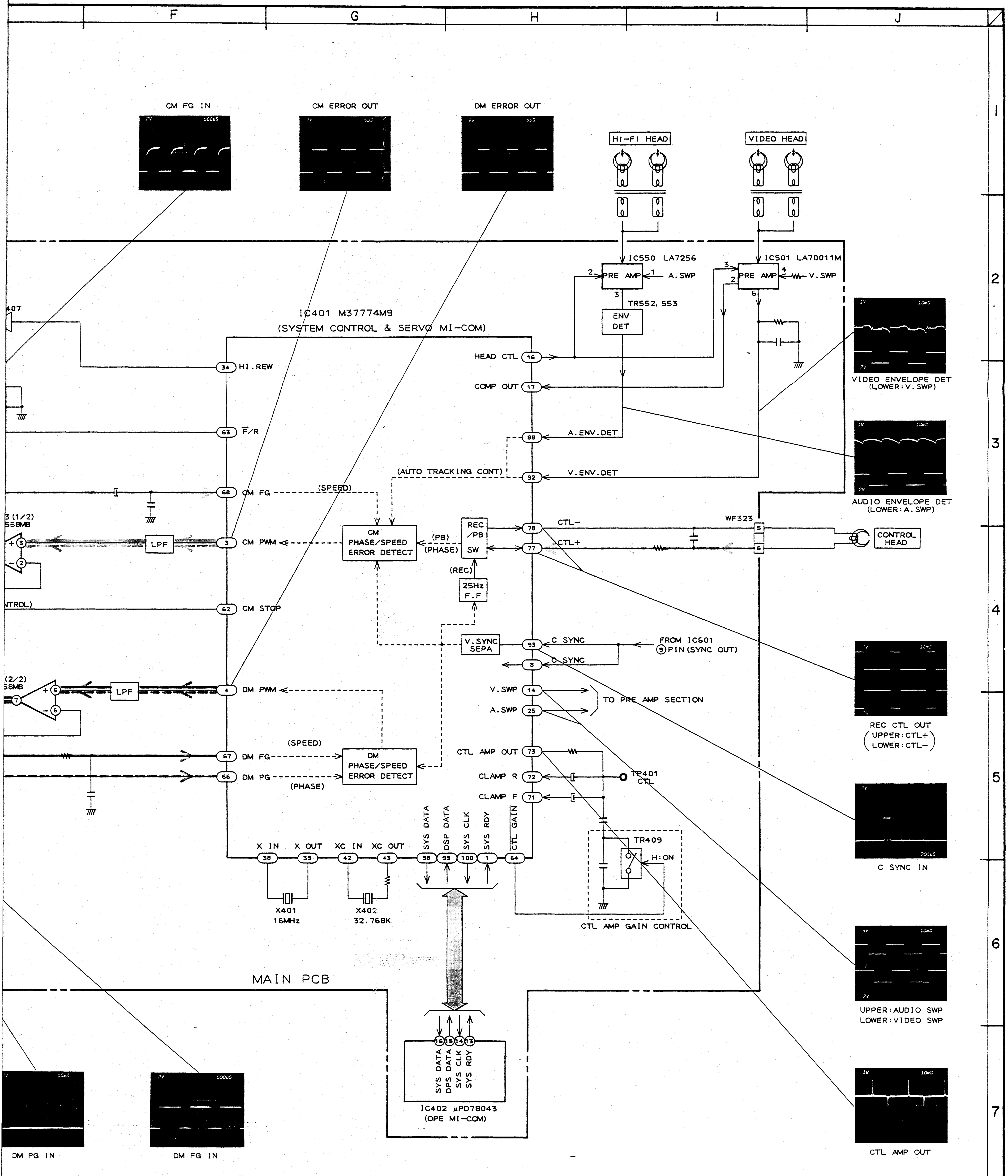
VS-G2DPL EA-D/EK-N/
EOG-D/EOH-DN/SEG-N
AUDIO BLOCK DIAGRAM
No.4-2 V124452M
A1


CM
CAPSTAN MOTOR BLOCK (F2QTB24)
IC M56746SP
HE3
HE2
HE1
0.47Ω 1/2W
1/2 VCC
MR
IDL5V
REG14V
FR401
D407
DM POWER
TR407
TR406
L:ON
REG18V
IDL5V
1 IDL5V
2 FWD/REV
3 FG OUT
4 CTL REF
5 CM CONT
6 LIMIT
7 CM POWER
8 M.GND
9 D.GND
10 N.C
P414
M.GND
IC403 (1/2)
NJM4558MB
LPF
TR405
(CM ON/OFF CONTROL)
H:ON
DRUM MOTOR BLOCK (F20EL60)
IC M56747AFP
HE
HE
HE
0.47Ω
V.CTL
GND
FG OUT
12V IN
PG OUT
5V IN
P413
7 DM CONT
6 M.GND
5 DM FG
4 DM POWER
3 DM PG
2 GND
1 IDL5V
M.GND
IDL5V
DM POWER
IC403 (2/2)
NJM4558MB
LPF
DM PG IN

NOTE: PHOTOGRAPHS EXCEPT [REC CTL OUT]
WERE TAKEN DURING PB MODE.
EXCEPT [REC CTL OUT, ENVELOPE DET. SWP]
PHOTOGRAPH'S SECOND LINE FROM THE
BOTTOM IS DC 0V.


A
B
C
D
E
F
1
2
3
4
5
6
7
8
CM
CAPSTAN MOTOR BLOCK (F2QTB24)
N
M
S
HE3
HE2
HE1
0.47Ω 1/2W
1/2 VCC
IC M56746SP
MR
IDL5V
REG14V
FR401
D407
DM POWER
TR407
TR406
L:ON
REG18V
IDL5V
1 IDL5V
2 FWD/REV
3 FG OUT
4 CTL REF
5 CM CONT
6 LIMIT
7 CM POWER
8 M.GND
9 D.GND
10 N.C
P414
M.GND
IC403 (1/2)
NJM4558MB
LPF
TR405
(CM ON/OFF CONTROL)
H:ON
DRUM MOTOR BLOCK (F20EL60)
IC M56747AFP
HE
HE
HE
0.47Ω
V.CTL
GND
FG OUT
12V IN
PG OUT
5V IN
DM POWER
IC403 (2/2)
NJM4558MB
LPF
P413
7 DM CONT
6 M.GND
5 DM FG
4 DM POWER
3 DM PG
2 GND
1 IDL5V
M.GND
IDL5V
2V
10mS
DM PG IN
2V
D

NOTE: PHOTOGRAPHS EXCEPT [REC CTL OUT]
WERE TAKEN DURING PB MODE.
EXCEPT [REC CTL OUT, ENVELOPE DET, SWP]
PHOTOGRAPH'S SECOND LINE FROM THE
BOTTOM IS DC 0V.


F
G
H
I
J
1
2
3
4
5
6
7
CM FG IN
CM ERROR OUT
DM ERROR OUT
HI-FI HEAD
VIDEO HEAD
IC550 LA7256
PRE AMP
A.SWP
TR552, 553
ENV DET
IC501 LA70011M
PRE AMP
V.SWP
IC401 M37774M9
(SYSTEM CONTROL & SERVO MI-COM)
407
HI.REW
34
HEAD CTL
16
COMP OUT
17
63
F̅/R
A.ENV.DET
88
(AUTO TRACKING CONT)
V.ENV.DET
92
68
CM FG
(SPEED)
3 (1/2)
558MB
LPF
3
CM PWM
CM PHASE/SPEED ERROR DETECT
(PB)
(PHASE)
REC /PB SW
(REC)
25Hz F.F
78
CTL−
77
CTL+
WF323
5
6
CONTROL HEAD
NTROL)
62
CM STOP
V.SYNC SEPA
93
C SYNC
FROM IC601 ⑨PIN (SYNC OUT)
8
C SYNC
(2/2)
558MB
LPF
4
DM PWM
V.SWP
14
A.SWP
25
TO PRE AMP SECTION
(SPEED)
67
DM FG
66
DM PG
DM PHASE/SPEED ERROR DETECT
(PHASE)
CTL AMP OUT
73
CLAMP R
72
CLAMP F
71
TP401 CTL
TR409
H:ON
CTL AMP GAIN CONTROL
X IN
38
X OUT
39
XC IN
42
XC OUT
43
SYS DATA
98
DSP DATA
99
SYS CLK
100
SYS RDY
1
CTL GAIN
64
X401 16MHz
X402 32.768K
MAIN PCB
16 15 14 13
SYS DATA
DPS DATA
SYS CLK
SYS RDY
IC402 μPD78043 (OPE MI-COM)
VIDEO ENVELOPE DET (LOWER:V.SWP)
AUDIO ENVELOPE DET (LOWER:A.SWP)
REC CTL OUT (UPPER:CTL+ LOWER:CTL−)
C SYNC IN
UPPER:AUDIO SWP
LOWER:VIDEO SWP
CTL AMP OUT
DM PG IN
DM FG IN

▨ :CAPSTAN MOTOR SPEED CONTROL LINE

▨ :CAPSTAN MOTOR PHASE CONTROL LINE

—— :DRUM MOTOR SPEED CONTROL LINE

- - - :DRUM MOTOR PHASE CONTROL LINE

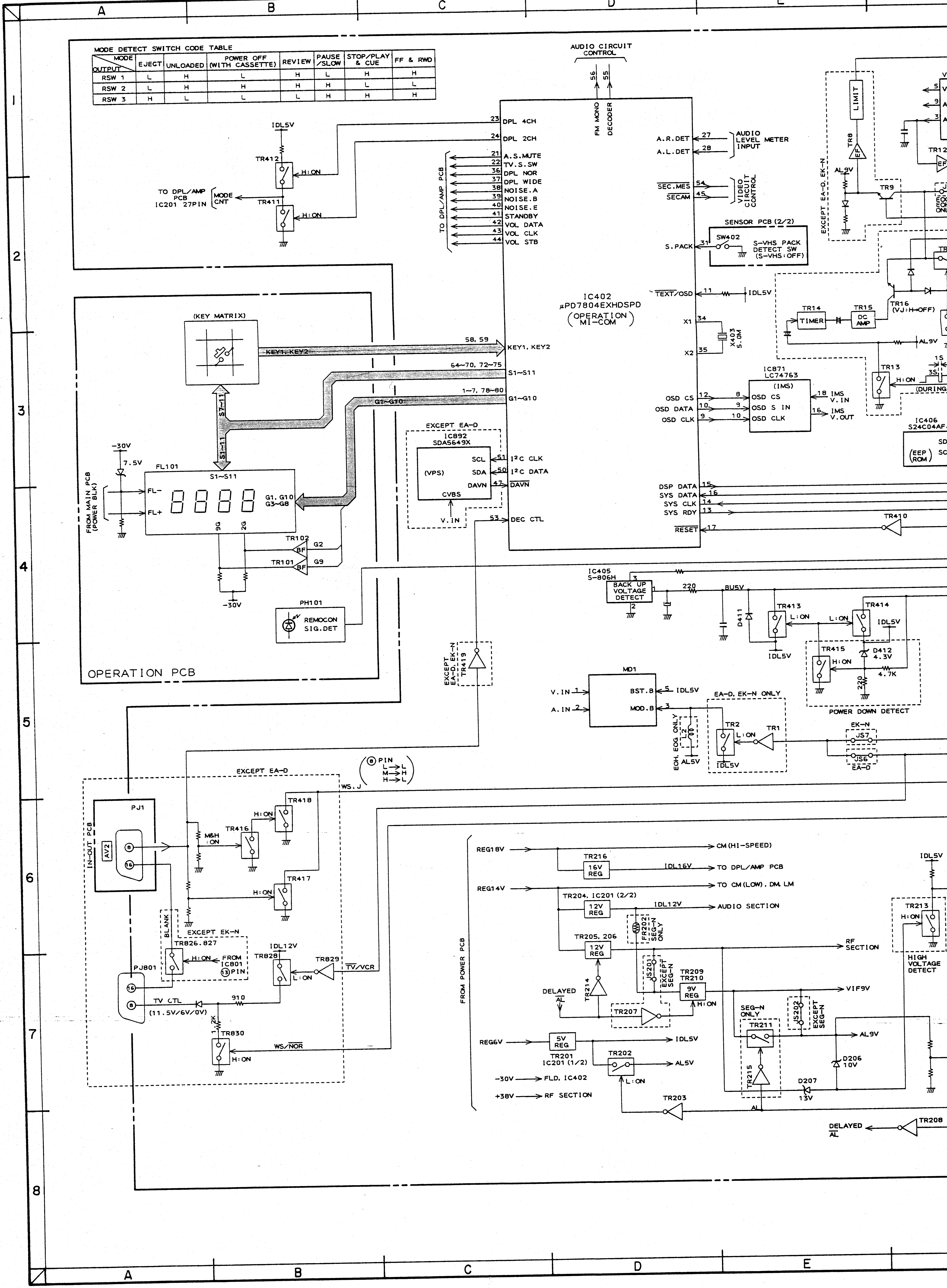
VS-G2DPL EA-D/EK-N/
EOG-D/EOH-DN/SEG-N
SERVO BLOCK DIAGRAM
No.4-3 V124453M
A1

F G H I J

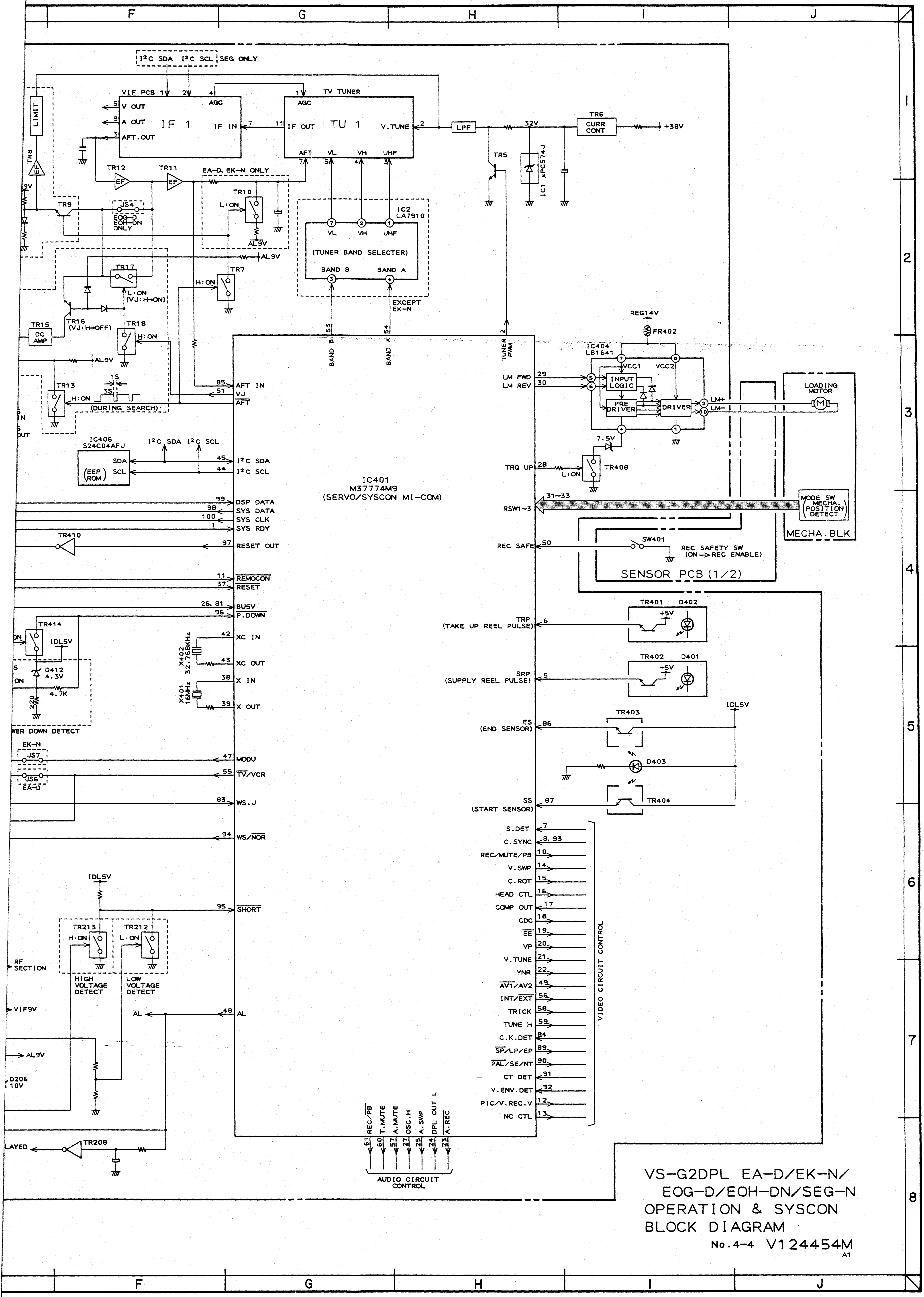
8

MODE DETECT SWITCH CODE TABLE

MODE / OUTPUT	EJECT	UNLOADED	POWER OFF (WITH CASSETTE)	REVIEW	PAUSE /SLOW	STOP/PLAY & CUE	FF & RWD
RSW 1	L	H	L	H	L	H	H
RSW 2	L	H	H	H	H	L	L
RSW 3	H	L	L	L	H	H	H

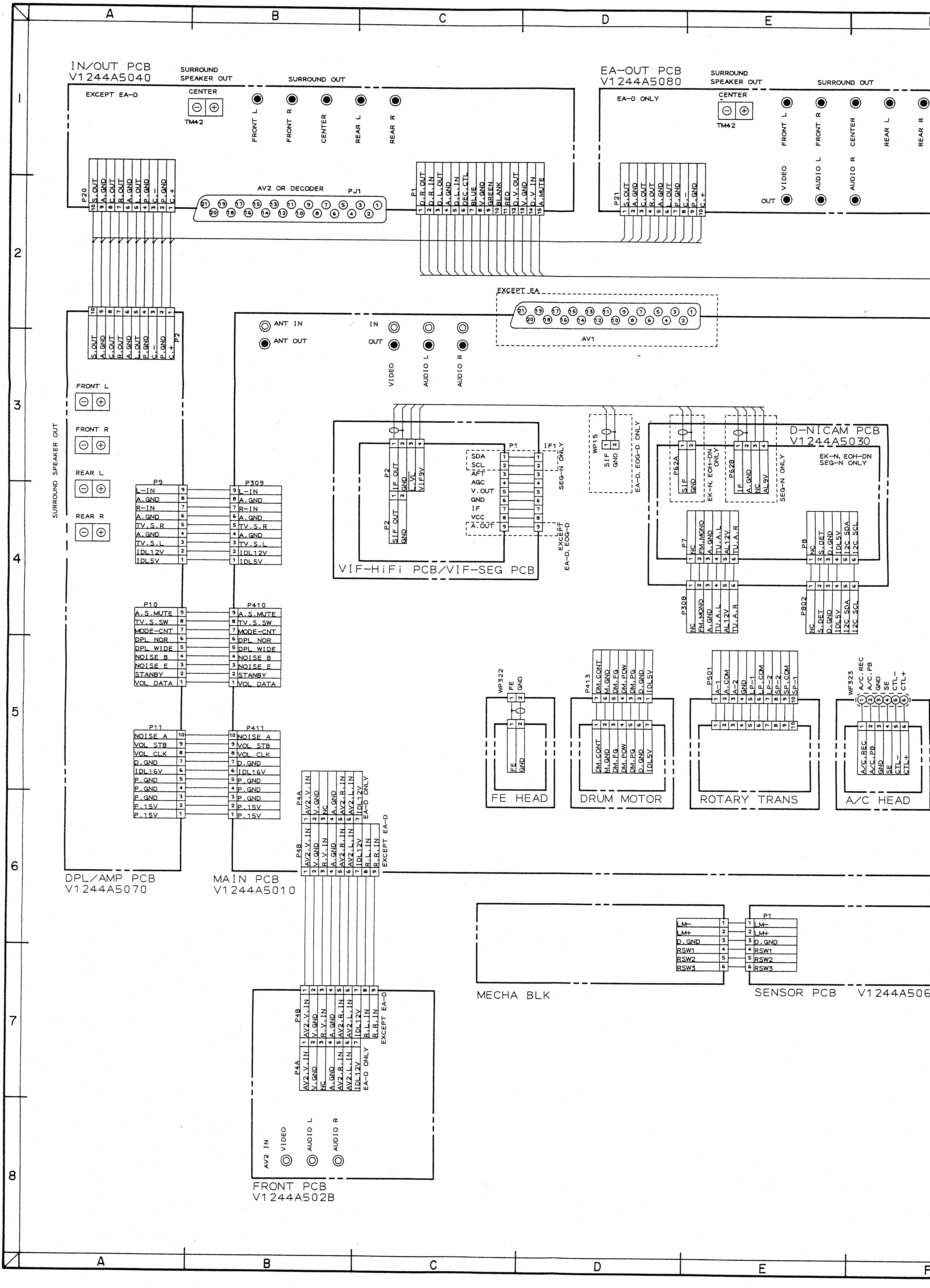


A
B
C
D
E
1
2
3
4
5
6
7
8
AUDIO CIRCUIT CONTROL
56
55
FM MONO
DECODER
IC402
µPD7804EXHDSPD
(OPERATION MI-COM)
23 DPL 4CH
24 DPL 2CH
21 A.S.MUTE
22 TV.S.SW
36 DPL NOR
37 DPL WIDE
38 NOISE.A
39 NOISE.B
40 NOISE.E
41 STANDBY
42 VOL DATA
43 VOL CLK
44 VOL STB
TO DPL/AMP PCB
IDL5V
TR412
H:ON
TR411
TO DPL/AMP PCB IC201 27PIN
MODE CNT
A.R.DET 27
A.L.DET 28
AUDIO LEVEL METER INPUT
SEC.MES 54
SECAM 45
VIDEO CIRCUIT CONTROL
SENSOR PCB (2/2)
S.PACK 31
SW402
S-VHS PACK DETECT SW (S-VHS:OFF)
TEXT/OSD 11
X1 34
X2 35
X403 5.0M
IC871 LC74763 (IMS)
OSD CS 12
OSD DATA 10
OSD CLK 9
8 OSD CS
9 OSD S IN
10 OSD CLK
18 IMS V.IN
16 IMS V.OUT
(KEY MATRIX)
KEY1, KEY2
58, 59
KEY1, KEY2
64~70, 72~75
S1~S11
1~7, 78~80
G1~G10
S7~11
S1~11
-30V
7.5V
FROM MAIN PCB (POWER BLK)
FL101
S1~S11
FL-
FL+
G1, G10
G3~G8
9G
2G
TR102 BF G2
TR101 BF G9
-30V
EXCEPT EA-D
IC892 SDA5649X
(VPS)
SCL 51 I²C CLK
SDA 50 I²C DATA
DAVN 47 DAVN
CVBS
V.IN
53 DEC CTL
PH101
REMOCON SIG.DET
OPERATION PCB
EXCEPT EA-D, EK-N TR419
DSP DATA 15
SYS DATA 16
SYS CLK 14
SYS RDY 13
RESET 17
TR410
IC405 S-806H
BACK UP VOLTAGE DETECT
3
1
2
220
BU5V
D411
TR413
L:ON
IDL5V
TR414
L:ON
IDL5V
TR415
H:ON
D412 4.3V
4.7K
220
POWER DOWN DETECT
MD1
V.IN 1
A.IN 2
BST.B 5 IDL5V
MOD.B 3
EA-D, EK-N ONLY
EOH, EOG ONLY L2
TR2
L:ON
TR1
AL5V
IDL5V
EK-N JS7
JS6 EA-D
LIMIT
TR8 EF
AL9V
TR9
EXCEPT EA-D, EK-N
TR12 EF
TR14 TIMER
TR15 DC AMP
TR16 (VJ:H→OFF)
AL9V
TR13 H:ON
(DURING
IC406 S24C04AF
(EEP ROM)
EXCEPT EA-D
(⑧PIN L→L M→H H→L)
WS.J
IN-OUT PCB
PJ1
AV2
⑧
⑯
M&H :ON
TR416
H:ON
TR418
H:ON
TR417
H:ON
BLANK
EXCEPT EK-N
TR826, 827
H:ON
FROM IC801 ⑬PIN
PJ801
⑯
⑧
TV CTL (11.5V/6V/0V)
910
IDL12V
TR828
L:ON
TR829
TV/VCR
2K
TR830
H:ON
WS/NOR
FROM POWER PCB
REG18V
CM (HI-SPEED)
TR216 16V REG
IDL16V
TO DPL/AMP PCB
REG14V
TO CM (LOW), DM, LM
TR204, IC201 (2/2)
12V REG
IDL12V
AUDIO SECTION
FR202 SEG-N ONLY
TR205, 206
12V REG
RF SECTION
JS201 EXCEPT SEG-N
TR209 TR210 9V REG
H:ON
VIF9V
DELAYED AL
TR214
TR207
SEG-N ONLY
TR211
JS202 EXCEPT SEG-N
AL9V
TR215
D206 10V
D207 13V
REG6V
5V REG
TR201 IC201 (1/2)
IDL5V
TR202
AL5V
L:ON
-30V FLD, IC402
+38V RF SECTION
TR203
AL
DELAYED AL
TR208
IDL5V
TR213
H:ON
HIGH VOLTAGE DETECT



F
G
H
I
J
1
2
3
4
5
6
7
8
I²C SDA
I²C SCL
SEG ONLY
VIF PCB
IF 1
V OUT
A OUT
AFT.OUT
IF IN
AGC
TV TUNER
TU 1
IF OUT
V.TUNE
AFT
VL
VH
UHF
LPF
32V
TR6
CURR CONT
+38V
TR5
IC1 µPC574J
LIMIT
TR8
EF
TR12
TR11
EA-D, EK-N ONLY
TR10
L:ON
AL9V
TR9
JS4
EOG-D EOH-DN ONLY
IC2 LA7910
(TUNER BAND SELECTER)
BAND B
BAND A
EXCEPT EK-N
TR17
L:ON (VJ:H→ON)
TR7
H:ON
TR15
DC AMP
TR16 (VJ:H→OFF)
TR18
H:ON
TR13
H:ON
1S
3S
(DURING SEARCH)
AFT IN
VJ
AFT
TUNER PWM
IC406 S24C04AFJ
SDA
SCL
(EEP ROM)
I²C SDA
I²C SCL
IC401
M37774M9
(SERVO/SYSCON MI-COM)
DSP DATA
SYS DATA
SYS CLK
SYS RDY
TR410
RESET OUT
REMOCON
RESET
BUSV
P.DOWN
TR414
IDL5V
D412 4.3V
4.7K
220
WER DOWN DETECT
XC IN
XC OUT
X IN
X OUT
X402 32.768KHz
X401 16MHz
EK-N
JS7
JS6
EA-D
MODU
TV/VCR
WS.J
WS/NOR
IDL5V
SHORT
TR213
H:ON
TR212
L:ON
HIGH VOLTAGE DETECT
LOW VOLTAGE DETECT
RF SECTION
VIF9V
AL
AL9V
D206 10V
LAYED
TR208
REG14V
FR402
IC404 LB1641
VCC1
VCC2
INPUT LOGIC
PRE DRIVER
DRIVER
LM FWD
LM REV
LM+
LM−
LOADING MOTOR
M
7.5V
TRQ UP
TR408
L:ON
RSW1~3
31~33
MODE SW MECHA. POSITION DETECT
MECHA.BLK
REC SAFE
SW401
REC SAFETY SW (ON→REC ENABLE)
SENSOR PCB (1/2)
TRP (TAKE UP REEL PULSE)
TR401
D402
+5V
SRP (SUPPLY REEL PULSE)
TR402
D401
+5V
ES (END SENSOR)
TR403
IDL5V
D403
SS (START SENSOR)
TR404
S.DET
C.SYNC
REC/MUTE/PB
V.SWP
C.ROT
HEAD CTL
COMP OUT
CDC
EE
VP
V.TUNE
YNR
AV1/AV2
INT/EXT
TRICK
TUNE H
C.K.DET
SP/LP/EP
PAL/SE/NT
CT DET
V.ENV.DET
PIC/V.REC.V
NC CTL
VIDEO CIRCUIT CONTROL
REC/PB
T.MUTE
A.MUTE
OSC.H
A.SWP
DPL OUT L
A.REC
AUDIO CIRCUIT CONTROL

VS-G2DPL EA-D/EK-N/
EOG-D/EOH-DN/SEG-N
OPERATION & SYSCON
BLOCK DIAGRAM
No.4-4 V124454M
A1


A
B
C
D
E
F
1
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3
4
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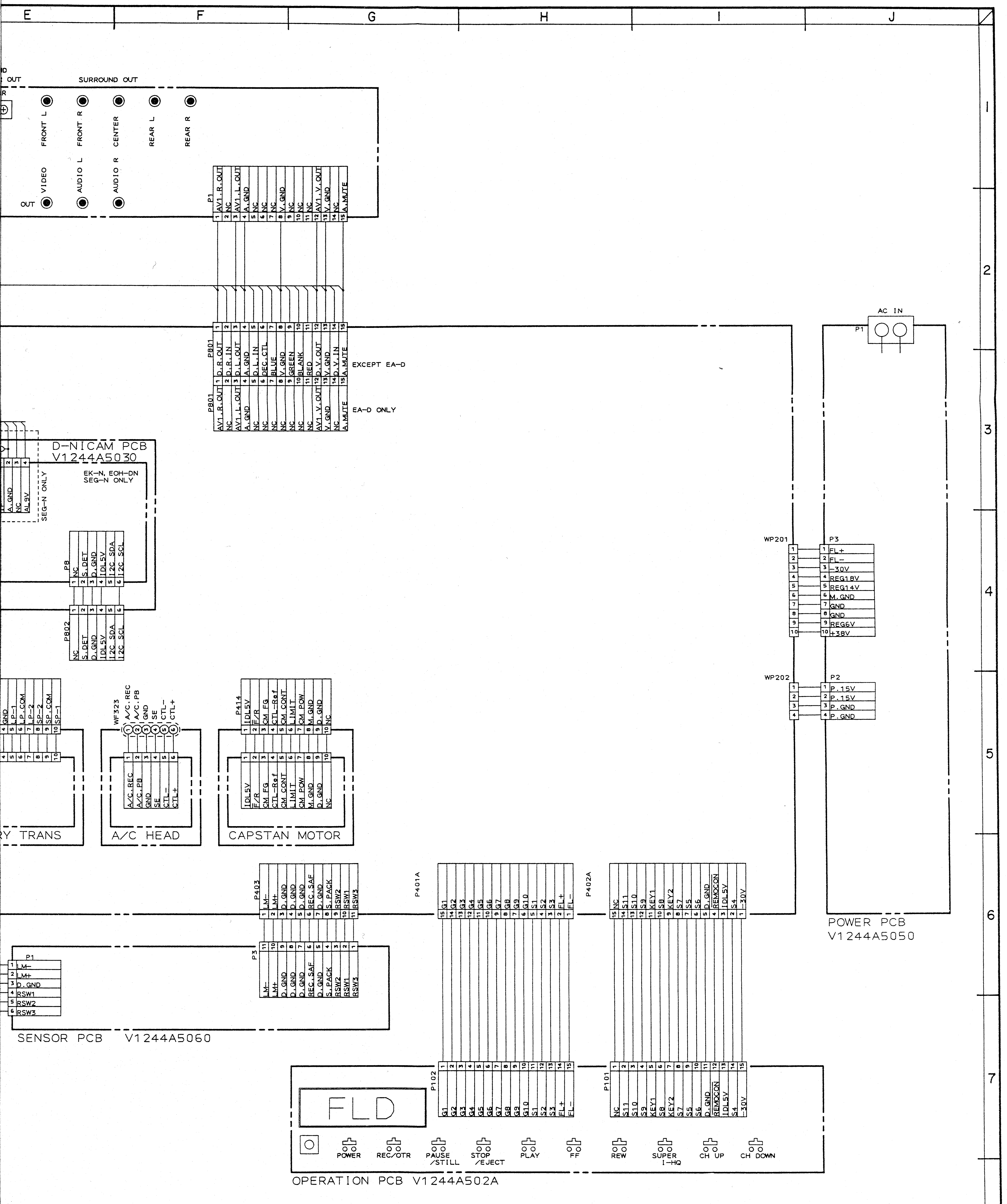
6
7
8
IN/OUT PCB
V1244A5040
EXCEPT EA-D
SURROUND SPEAKER OUT
CENTER
TM42
SURROUND OUT
FRONT L
FRONT R
CENTER
REAR L
REAR R
P20
S.OUT
A.GND
C.OUT
R.OUT
A.GND
L.OUT
P.GND
C.-
P.GND
C.+
AV2 OR DECODER
PJ1
P1
D.R.OUT
D.R.IN
D.L.OUT
A.GND
D.L.IN
DEC.CTL
BLUE
V.GND
GREEN
BLANK
RED
D.V.OUT
V.GND
D.V.IN
A.MUTE
EA-OUT PCB
V1244A5080
EA-D ONLY
P21
OUT
VIDEO
AUDIO L
AUDIO R
EXCEPT EA
AV1
ANT IN
ANT OUT
IN
OUT
VIDEO
AUDIO L
AUDIO R
P2
SURROUND SPEAKER OUT
FRONT L
FRONT R
REAR L
REAR R
P9
L-IN
A.GND
R-IN
A.GND
TV.S.R
A.GND
TV.S.L
IDL12V
IDL5V
P309
P10
A.S.MUTE
TV.S.SW
MODE-CNT
DPL NOR
DPL WIDE
NOISE B
NOISE E
STANBY
VOL DATA
P410
P11
NOISE A
VOL STB
VOL CLK
D.GND
IDL16V
P.GND
P.GND
P.GND
P.15V
P.15V
P411
DPL/AMP PCB
V1244A5070
MAIN PCB
V1244A5010
P4A
AV2.V.IN
V.GND
NC
A.GND
AV2.R.IN
AV2.L.IN
IDL12V
EA-D ONLY
P4B
AV2.V.IN
V.GND
R.V.IN
A.GND
AV2.R.IN
AV2.L.IN
IDL12V
R.L.IN
R.R.IN
EXCEPT EA-D
FRONT PCB
V1244A502B
AV2 IN
VIDEO
AUDIO L
AUDIO R
VIF-HiFi PCB/VIF-SEG PCB
P2
IF OUT
GND
L.VL
VIF9V
SIF OUT
GND
P1
IF1
SDA
SCL
AFT
AGC
V.OUT
GND
IF
VCC
A.OUT
SEG-N ONLY
EXCEPT EA-D, EOG-D
WP15
SIF
GND
EA-D, EOG-D ONLY
D-NICAM PCB
V1244A5030
EK-N, EOH-DN SEG-N ONLY
P62A
SIF
GND
EK-N, EOH-DN ONLY
P62B
IF
A.GND
NC
AL9V
SEG-N ONLY
P7
NC
FM.MONO
A.GND
TU.A.L
AL12V
TU.A.R
P8
NC
S.DET
D.GND
IDL5V
I2C SDA
I2C SCL
P308
P802
WP322
FE
GND
FE HEAD
P413
DM.CONT
M.GND
DM.FG
DM.POW
DM.PG
D.GND
IDL5V
DRUM MOTOR
P501
A-1
A.COM
A-2
GND
LP-1
LP.COM
LP-2
SP-2
SP.COM
SP-1
ROTARY TRANS
WF323
A/C.REC
A/C.PB
GND
SE
CTL-
CTL+
A/C HEAD
MECHA BLK
LM-
LM+
D.GND
RSW1
RSW2
RSW3
P1
SENSOR PCB
V1244A506



E
F
G
H
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J
1
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3
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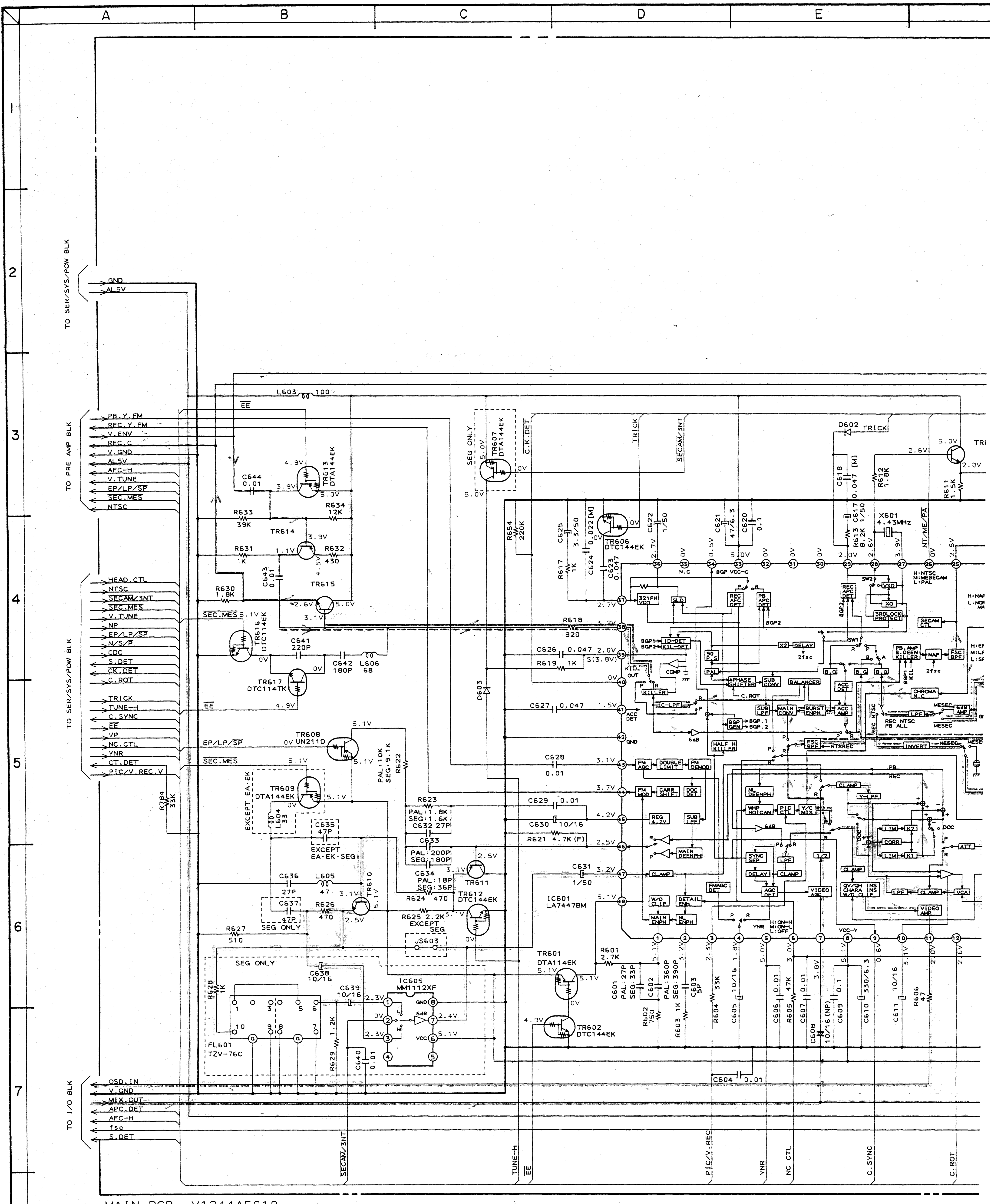
5
6
7
SURROUND OUT
OUT
FRONT L
FRONT R
CENTER
REAR L
REAR R
VIDEO
AUDIO L
AUDIO R
P1
AV1.R.OUT
NC
AV1.L.OUT
A.GND
NC
NC
NC
V.GND
NC
NC
NC
AV1.V.OUT
V.GND
NC
A.MUTE
P801
D.R.OUT
D.R.IN
D.L.OUT
A.GND
D.L.IN
DEC.CTL
BLUE
V.GND
GREEN
BLANK
RED
D.V.OUT
V.GND
D.V.IN
A.MUTE
EXCEPT EA-D
EA-D ONLY
D-NICAM PCB
V1244A5030
EK-N, EOH-DN
SEG-N ONLY
SEG-N ONLY
A.GND
NC
AL9V
P8
NC
S.DET
D.GND
IDL5V
I2C SDA
I2C SCL
P802
LP-1
LP.COM
LP-2
SP-2
SP.COM
SP-1
Y TRANS
WF323
A/C.REC
A/C.PB
GND
SE
CTL-
CTL+
A/C HEAD
P414
IDL5V
F/R
CM FG
CTL-Ref
CM CONT
LIMIT
CM POW
M.GND
D.GND
NC
CAPSTAN MOTOR
P403
LM-
LM+
D.GND
REC.SAF
S.PACK
RSW2
RSW1
RSW3
P3
P1
D.GND
SENSOR PCB V1244A5060
P401A
G1
G2
G3
G4
G5
G6
G7
G8
G9
G10
S1
S2
S3
FL+
FL-
P402A
NC
S11
S10
S9
KEY1
S8
KEY2
S7
S5
S6
D.GND
REMOCON
IDL5V
S4
-30V
P102
P101
FLD
POWER
REC/OTR
PAUSE /STILL
STOP /EJECT
PLAY
FF
REW
SUPER I-HQ
CH UP
CH DOWN
OPERATION PCB V1244A502A
AC IN
P1
WP201
P3
FL+
FL-
-30V
REG18V
REG14V
M.GND
GND
GND
REG6V
+38V
WP202
P2
P.15V
P.15V
P.GND
P.GND
POWER PCB
V1244A5050

VS-G2DPL EA-D/EK-N/
EOG-D/EOH-DN/SEG-N
CONNECTION DIAGRAM
No.15-1 V124401M
A1



A
B
C
D
E
1
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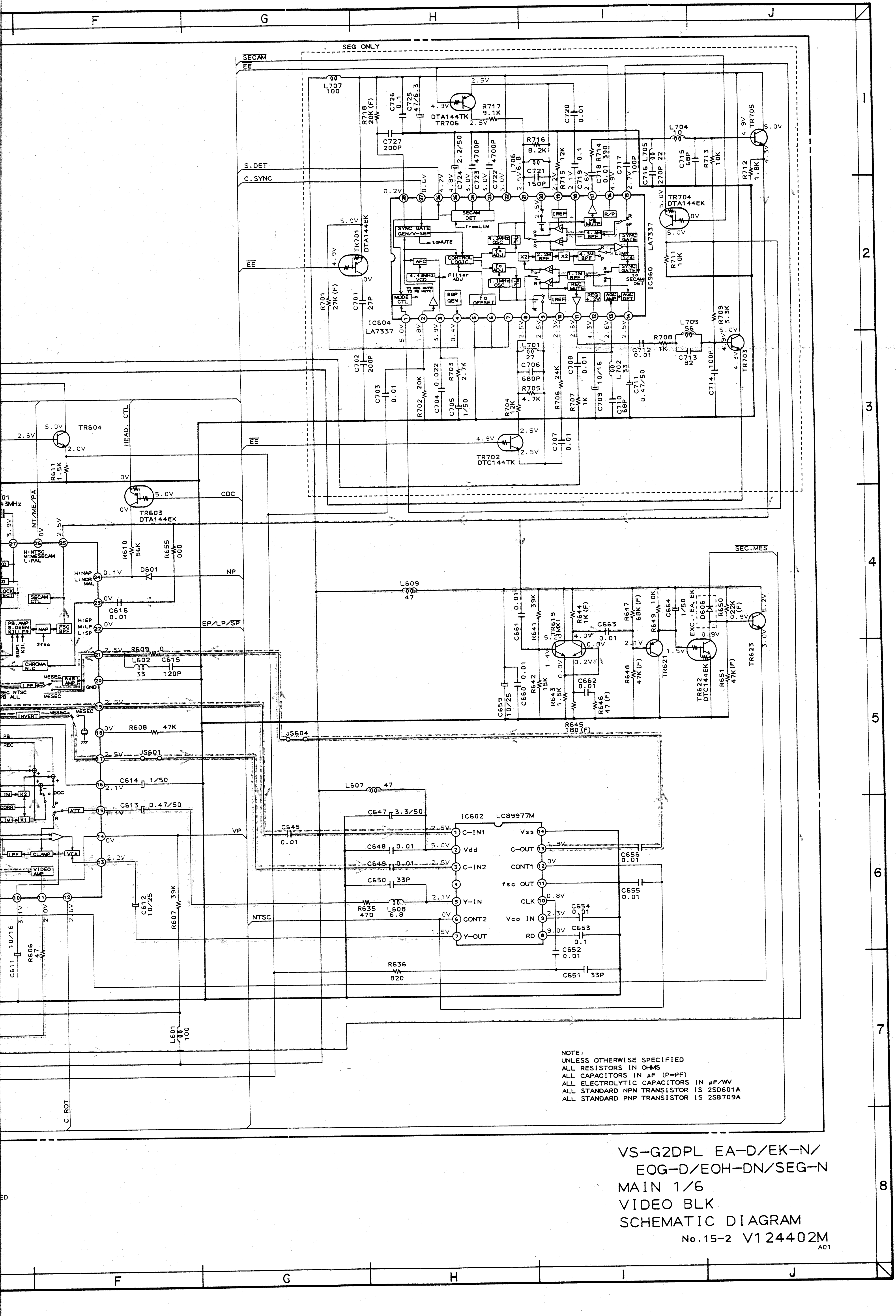
3
4
5
6
7
8
TO SER/SYS/POW BLK
GND
AL5V
TO PRE AMP BLK
PB.Y.FM
REC.Y.FM
V.ENV
REC.C
V.GND
AL5V
AFC-H
V.TUNE
EP/LP/SP
SEC.MES
NTSC
HEAD.CTL
NTSC
SECAM/3NT
SEC.MES
V.TUNE
NP
EP/LP/SP
N/S/P
CDC
S.DET
CK.DET
C.ROT
TRICK
TUNE-H
C.SYNC
EE
VP
NC.CTL
YNR
CT.DET
PIC/V.REC.V
TO I/O BLK
OSD.IN
V.GND
MIX.OUT
APC.DET
AFC-H
fsc
S.DET
L603 100
EE
TR613 DTA144EK
C644 0.01
R633 39K
R634 12K
TR614
R631 1K
R632 430
C643 0.01
TR615
R630 1.8K
SEC.MES
TR616 DTC114EK
C641 220P
C642 180P
L606 68
TR617 DTC114TK
EE
EP/LP/SP
TR608 UN211D
SEC.MES
R784 33K
TR609 DTA144EK
EXCEPT EA.EK
L604 33
C635 47P
EXCEPT EA·EK·SEG
PAL:10K SEG:9.1K R622
R623 PAL:1.8K SEG:1.6K
C632 27P
C633 PAL:200P SEG:180P
C634 PAL:18P SEG:36P
R624 470
C636 27P
L605 47
TR610
C637 47P
SEG ONLY
R626 470
R625 2.2K EXCEPT SEG
TR611
TR612 DTC144EK
JS603
R627 510
SEG ONLY
R628 1K
C638 10/16
C639 10/16
IC605 MM1112XF
6dB
GND
VCC
R629 1.2K
C640 0.01
FL601 TZV-76C
SEG ONLY
TR607 DTA144EK
C.K.DET
TRICK
SECAM/3NT
D603
R654 220K
C625 3.3/50
C624 0.022 [M]
C623 0.047
TR606 DTC144EK
C622 1/50
C621 47/6.3
C620 0.1
R617 1K
R618 820
C626 0.047
R619 1K
C627 0.047
C628 0.01
C629 0.01
C630 10/16
R621 4.7K (F)
C631 1/50
IC601 LA7447BM
TR601 DTA114EK
R601 2.7K
TR602 DTC144EK
C601 PAL:27P SEG:33P
C602 PAL:360P SEG:390P
R602 750
R603 1K
C603 5P
R604 33K
C605 10/16
C606 0.01
R605 47K
C607 0.01
C608 10/16 (NP)
C609 0.1
C610 330/6.3
C611 10/16
R606 47
C604 0.01
D602 TRICK
C618 0.047 [M]
R612 1.8K
R613 8.2K
C617 1/50
X601 4.43MHz
NT/ME/PA
R611 1.5K
H:NTSC M:MESECAM L:PAL
321FH VCO
SLD
REC AFC DET
PB APC DET
REC APC DET
VXO
XO
3RDLOCK PROTECT
SECAM CTL
ID-DET
KIL-DET
X2
DELAY
2fsc
90 P.S
PAL
4PHASE SHIFTER
SUB CONV
BALANCER
COMP
KILLER
C-LPF
C.ROT
BGP GEN
SUB LPF
MAIN CONV
BURST ENPH
ACC DET
ACC AMP
HALF H KILLER
FSC BPF
NTSC REC
PB.AMP B.DEEN KILLER
NAP
FSC BPF
CHROMA N.C
LPF
6dB AMP
REC NTSC PB ALL
MESEC
INVERT
FM AGC
DOUBLE LIMIT
FM DEMOD
FM MOD
CARR SHIFT
DOC DET
REG 4.2V
SUB LPF
MAIN DEENPH
NL DEENPH
WHP NOICAN
PIC CTL
Y/C MIX
CLAMP
Y-LPF
LIM
X2
CORR
K1
DOC
ATT
SYNC SEP
LPF
1/2
DELAY
CLAMP
AGC DET
VIDEO AGC
FMAGC DET
W/D CLIP
DETAIL ENH
MAIN ENPH
NL ENPH
QV/QH CHARA W/D
INS INS CLIP
LPF
CLAMP
VCA
VIDEO AMP
YNR
H:ON M:ON L:OFF
VCC-Y
BGP VCC-C
SECAM/3NT
TUNE-H
EE
PIC/V.REC
YNR
NC CTL
C.SYNC
C.ROT

MAIN PCB V1244A5010

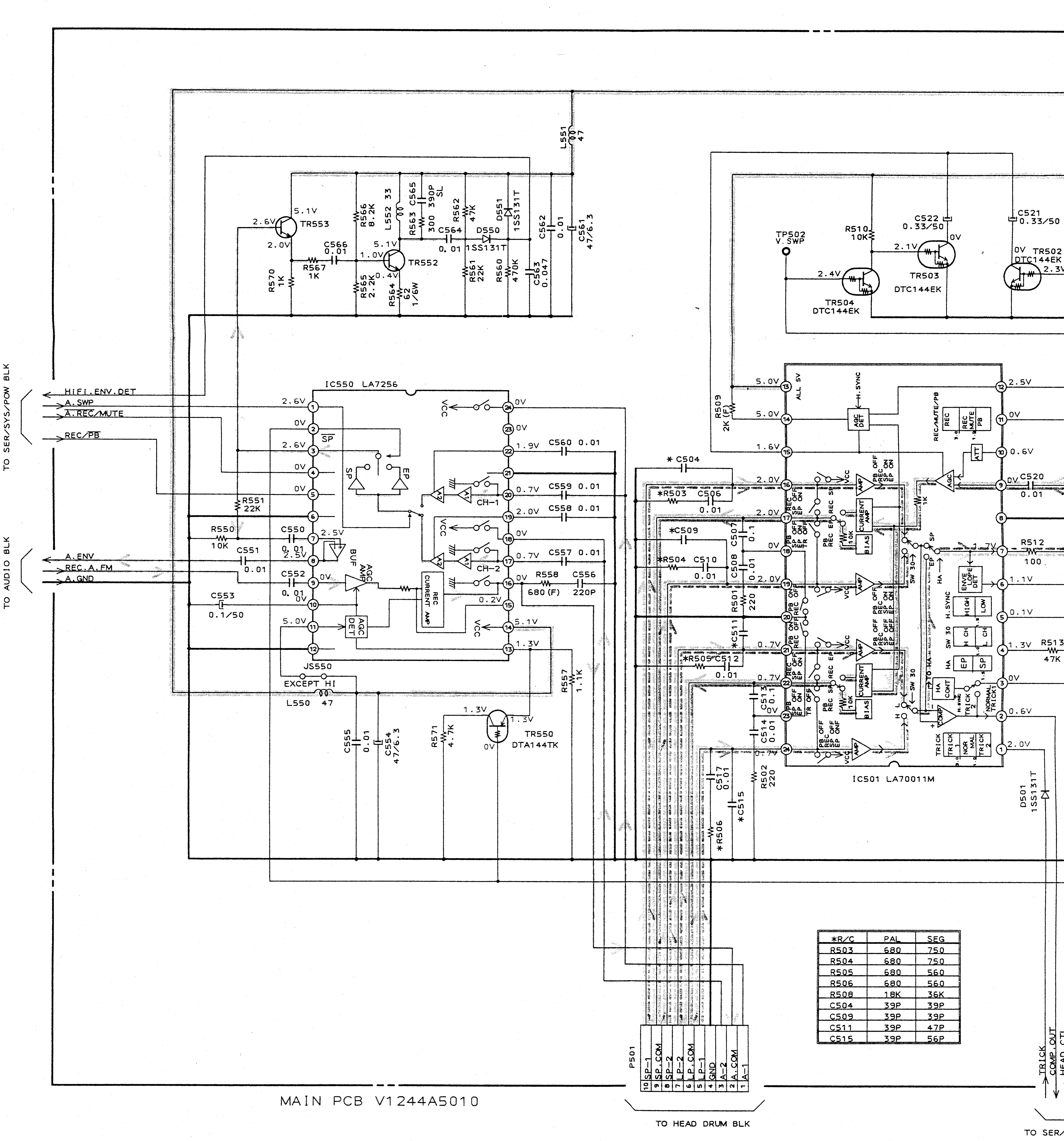
B (POWER SUPPLY) LINE
PB Y SIGNAL LINE
REC Y SIGNAL LINE
PB CHROMA SIGNAL LINE
REC CHROMA SIGNAL LINE

INDICATED VOLTAGES WERE MEASURED DURING PB MODE.
(TAPE USED:
PAL COLOUR BAR TAPE)
S( ):SEG MODEL
INDICATED VOLTAGES IN THE SEG CHROMA BLOCK WERE MEASURED WITH SECAM COLOUR BAR TAPE.


F
G
H
I
J
1
2
3
4
5
6
7
8
SEG ONLY
SECAM
EE
S.DET
C.SYNC
IC604
LA7337
IC960
LA7337
TR701
DTA144EK
TR702
DTC144TK
TR703
TR704
DTA144EK
TR705
TR706
DTA144TK
L707
100
R718
20K (F)
C726
0.1
C725
47/6.3
C727
200P
R717
9.1K
C720
0.01
L704
10
R716
8.2K
C721
150P
C715
68P
R713
10K
R712
1.8K
R711
10K
R709
3.3K
L703
56
R708
1K
C713
82
C712
0.01
C714
100P
R701
27K (F)
C701
27P
C702
200P
C703
0.01
R702
20K
C704
0.022
R703
2.7K
C705
1/50
R704
12K
L701
27
C706
680P
R705
4.7K
R706
24K
R707
1K
C708
0.01
C709
10/16
L702
33
C710
68P
C711
0.47/50
C707
0.01
SECAM DET
SYNC GATE GEN/V-SEP
CONTROL LOGIC
AFC
4.43MHz VCO
Filter ADJ
MODE CTL
BGP GEN
fo OFFSET
TR604
TR603
DTA144EK
HEAD. CTL
CDC
R611
1.5K
R610
56K
R655
000
D601
NP
C616
0.01
EP/LP/SP
R609
0
L602
33
C615
120P
R608
47K
JS601
JS604
C614
1/50
C613
0.47/50
VP
C612
10/25
R607
39K
NTSC
C611
10/16
R606
47
L601
100
C.ROT
H:NTSC
M:MESECAM
L:PAL
H:NAP
L:NORMAL
H:EP
M:LP
L:SP
L609
47
SEC.MES
C661
0.01
R641
39K
TR619
R644
1K (F)
C663
0.01
R647
68K (F)
R649
10K
C664
1/50
EXC. EA, EK
D606
R650
22K (F)
TR623
TR621
TR622
DTC144EK
R648
47K (F)
R651
47K (F)
C659
10/25
C660
0.01
R642
15K
R643
1.5K
C662
0.01
R646
47 (F)
R645
180 (F)
L607
47
IC602
LC89977M
C647
3.3/50
C645
0.01
C648
0.01
C649
0.01
C650
33P
R635
470
L608
6.8
C-IN1
Vdd
C-IN2
Y-IN
CONT2
Y-OUT
Vss
C-OUT
CONT1
fsc OUT
CLK
Vco IN
RD
C656
0.01
C655
0.01
C654
0.01
C653
0.1
C652
0.01
C651
33P
R636
820

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN µF (P=PF)
ALL ELECTROLYTIC CAPACITORS IN µF/WV
ALL STANDARD NPN TRANSISTOR IS 2SD601A
ALL STANDARD PNP TRANSISTOR IS 2SB709A

VS-G2DPL EA-D/EK-N/
EOG-D/EOH-DN/SEG-N
MAIN 1/6
VIDEO BLK
SCHEMATIC DIAGRAM
No.15-2 V124402M
A01


A
B
C
D
E
1
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4
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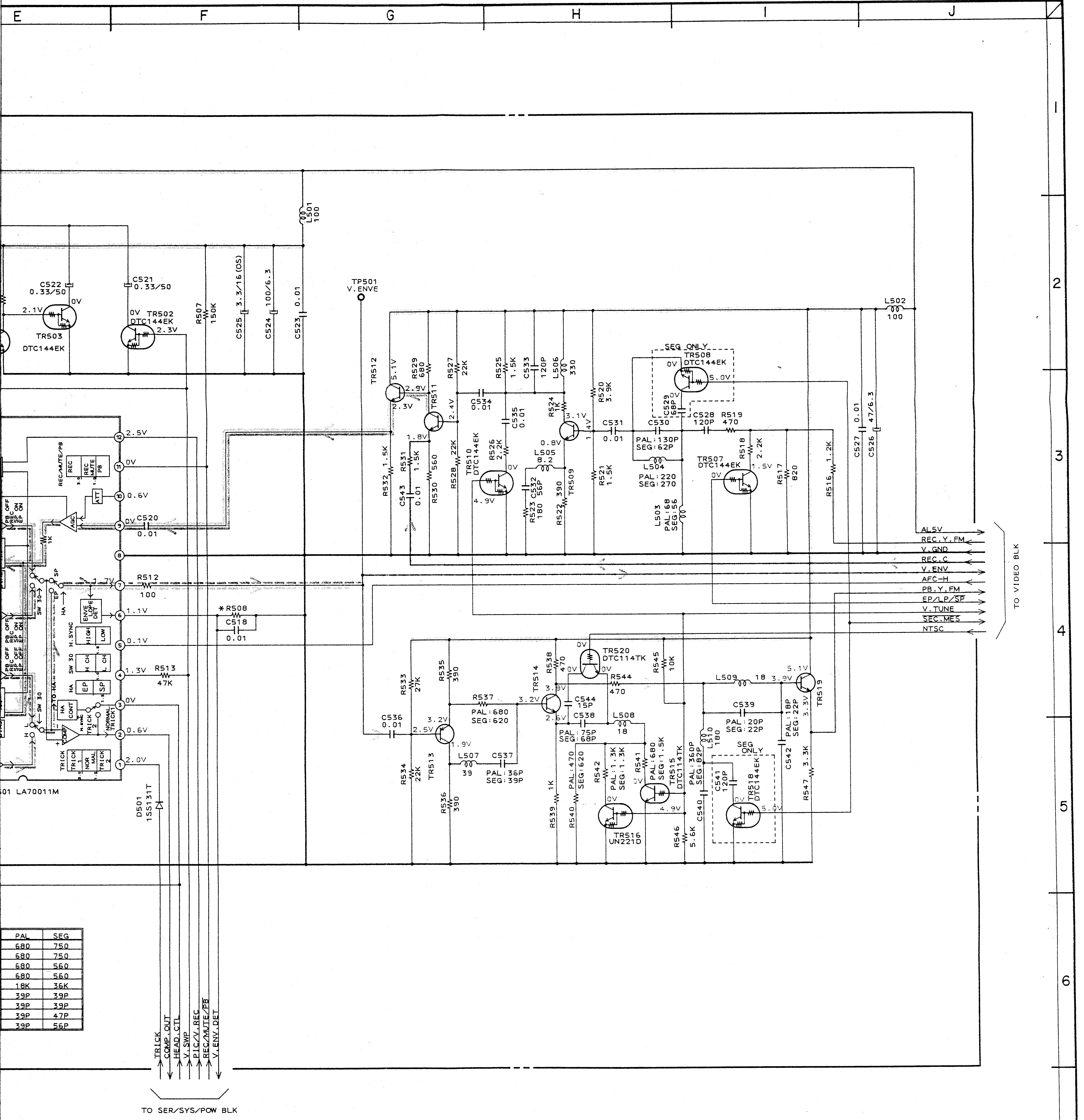
6
7
8
L551 47
TR553
5.1V
2.6V
2.0V
R570 1K
R567 1K
C566 0.01
R566 8.2K
R565 2.2K
L552 33
R563 300
C565 390P SL
R562 47K
D551 1SS131T
C564 0.01
D550 1SS131T
TR552
1.0V
0.4V
R564 62 1/6W
R561 22K
R560 470K
C563 0.047
C562 0.01
C561 47/6.3
TO SER/SYS/POW BLK
HIFI.ENV.DET
A.SWP
A.REC/MUTE
REC/PB
TO AUDIO BLK
A.ENV
REC.A.FM
A.GND
IC550 LA7256
R551 22K
R550 10K
C550 0.01
C551 0.01
C552 0.01
C553 0.1/50
SP
EP
CH-1
CH-2
BUF
AGC AMP
AGC DET
REC CURRENT AMP
VCC
C560 0.01
C559 0.01
C558 0.01
C557 0.01
R558 680 (F)
C556 220P
JS550
EXCEPT HI
L550 47
C555 0.01
C554 47/6.3
R571 4.7K
TR550 DTA144TK
R557 1.1K
1.9V
0.7V
0.2V
1.3V
5.0V
TP502 V.SWP
R510 10K
C522 0.33/50
C521 0.33/50
TR504 DTC144EK
TR503 DTC144EK
TR502 DTC144EK
R509 2K (F)
*C504
*R503
C506 0.01
*C509
*R504
C510 0.01
C507 0.1
C508 0.01
R501 220
*C511
*R505
C512 0.01
C513 0.1
C514 0.01
C517 0.01
*C515
*R506
R502 220
ALL 5V
H.SYNC
AGC DET
REC/MUTE/PB
ATT
AGC
C520 0.01
R512 100
R513 47K
CURRENT AMP
BIAS
SW 30
HA
ENVE LOPE DET
HIGH
LOW
H CH
L CH
EP
SP
HA CONT
COMP
NORMAL TRICK1
TRICK 1
NOR MAL
TRICK 2
IC501 LA70011M
D501 1SS131T
P501
SP-1
SP.COM
SP-2
LP-2
LP.COM
LP-1
GND
A-2
A.COM
A-1
TO HEAD DRUM BLK
TRICK
COMP.OUT
TO SER/
MAIN PCB V1244A5010

*R/C	PAL	SEG
R503	680	750
R504	680	750
R505	680	560
R506	680	560
R508	18K	36K
C504	39P	39P
C509	39P	39P
C511	39P	47P
C515	39P	56P

▨ B (POWER SUPPLY) LINE
▨ PB AFM SIGNAL LINE
▨ REC AFM SIGNAL LINE
▨ PB Y SIGNAL LINE
▨ REC Y SIGNAL LINE
▨ PB CHROMA SIGNAL LINE
▨ REC CHROMA SIGNAL LINE

INDICATED VOLTAGES WERE
MEASURED DURING PB MODE.
(TAPE USED:
PAL COLOUR BAR TAPE)


E
F
G
H
I
J
1
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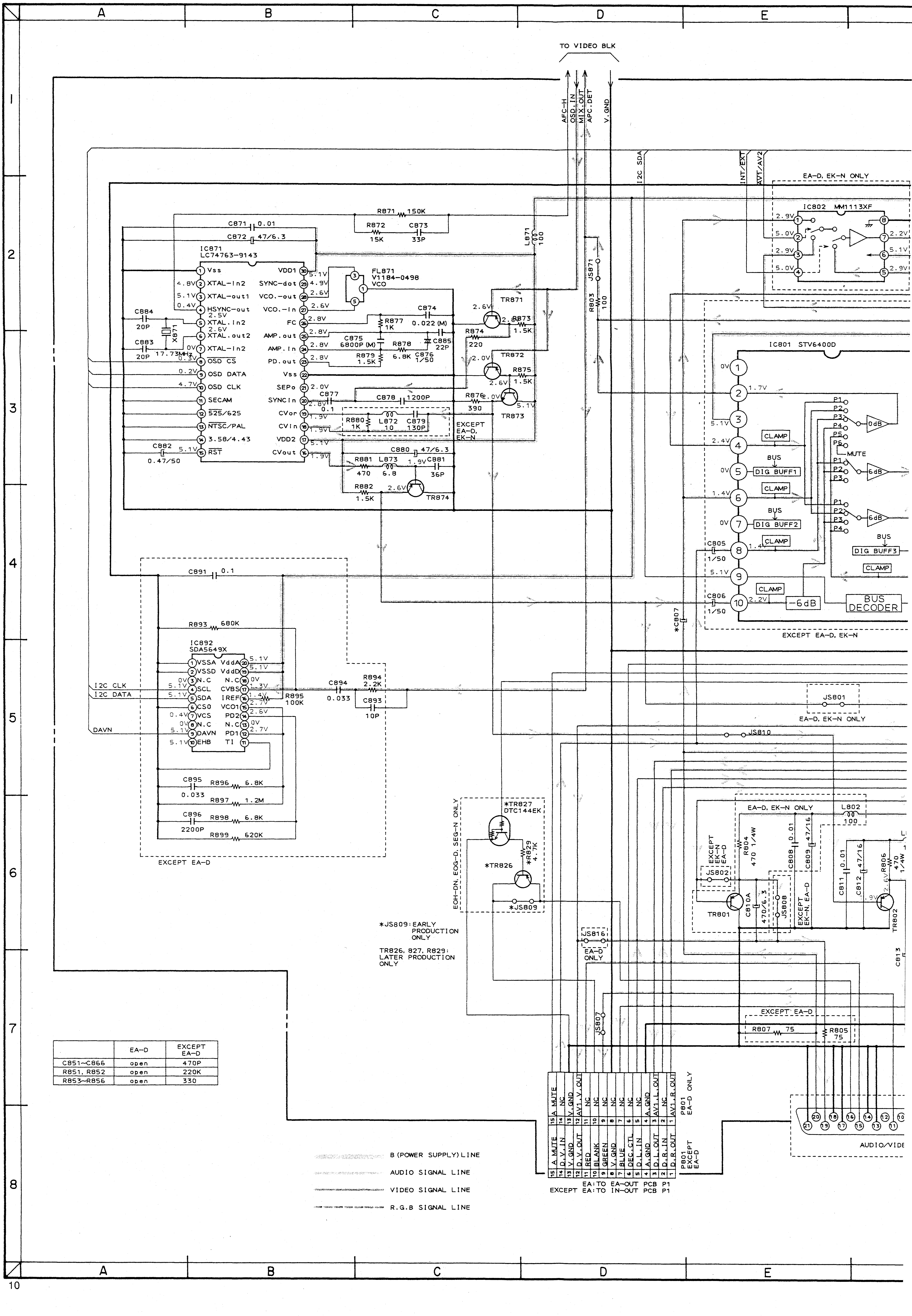
3
4
5
6
7
8
L501 100
C522 0.33/50
C521 0.33/50
TR503 DTC144EK
TR502 DTC144EK
2.1V
0V
2.3V
R507 150K
C525 3.3/16(OS)
C524 100/6.3
C523 0.01
TP501 V.ENVE
L502 100
TR512
R529 680
R527 22K
R525 1.5K
C533 120P
L506 330
R520 3.9K
SEG ONLY
TR508 DTC144EK
5.1V
2.9V
2.3V
TR511
2.4V
C534 0.01
C535 0.01
R524 1K
3.1V
1.4V
C531 0.01
C530
C529 68P
C528 120P
R519 470
C527 0.01
C526 47/6.3
1.8V
R532 1.5K
R531 1.5K
R530 560
R528 22K
TR510 DTC144EK
R526 2.2K
0.8V
L505 8.2
C532 56P
R523 180
R522 390
TR509
R521 1.5K
PAL:130P SEG:62P
L504
PAL:220 SEG:270
L503 PAL:68 SEG:56
TR507 DTC144EK
R518 2.2K
1.5V
R517 820
R516 1.2K
C543 0.01
4.9V
5.0V
AL5V
REC.Y.FM
V.GND
REC.C
V.ENV
AFC-H
PB.Y.FM
EP/LP/SP
V.TUNE
SEC.MES
NTSC
TO VIDEO BLK
REC/MUTE/PB
REC
MUTE
PB
ATT
AGC
2.5V
0.6V
C520 0.01
R512 100
7V
*R508
C518 0.01
1.1V
0.1V
1.3V
R513 47K
ENVE LOPE DET
H.SYNC
HIGH
LOW
SW 30
H CH
L CH
EP
SP
HA CONT
TRICK 2
NORMAL TRICK
COMP
TRICK 1
NOR MAL
2.0V
501 LA70011M
D501 1SS131T
TR520 DTC114TK
R538 470
R544 470
R545 10K
L509 18
3.9V
TR519
R533 27K
R535 390
TR514
R537 PAL:680 SEG:620
3.2V
C544 15P
2.6V
C538 PAL:75P SEG:68P
L508 18
C539 PAL:20P SEG:22P
C536 0.01
2.5V
1.9V
L507 39
C537 PAL:36P SEG:39P
R534 22K
TR513
R536 390
R539 1K
R540 PAL:470 SEG:620
R542 PAL:1.3K SEG:1.3K
R541 PAL:680 SEG:1.5K
TR515 DTC114TK
C540 PAL:360P SEG:82P
L510 180
C541 120P
TR518 DTC144EK
C542 PAL:18P SEG:22P
R547 3.3K
3.3V
TR516 UN221D
R546 5.6K
TRICK
COMP.OUT
HEAD.CTL
V.SWP
PIC/V.REC
REC/MUTE/PB
V.ENV.DET
TO SER/SYS/POW BLK

PAL	SEG
680	750
680	750
680	560
680	560
18K	36K
39P	39P
39P	39P
39P	47P
39P	56P

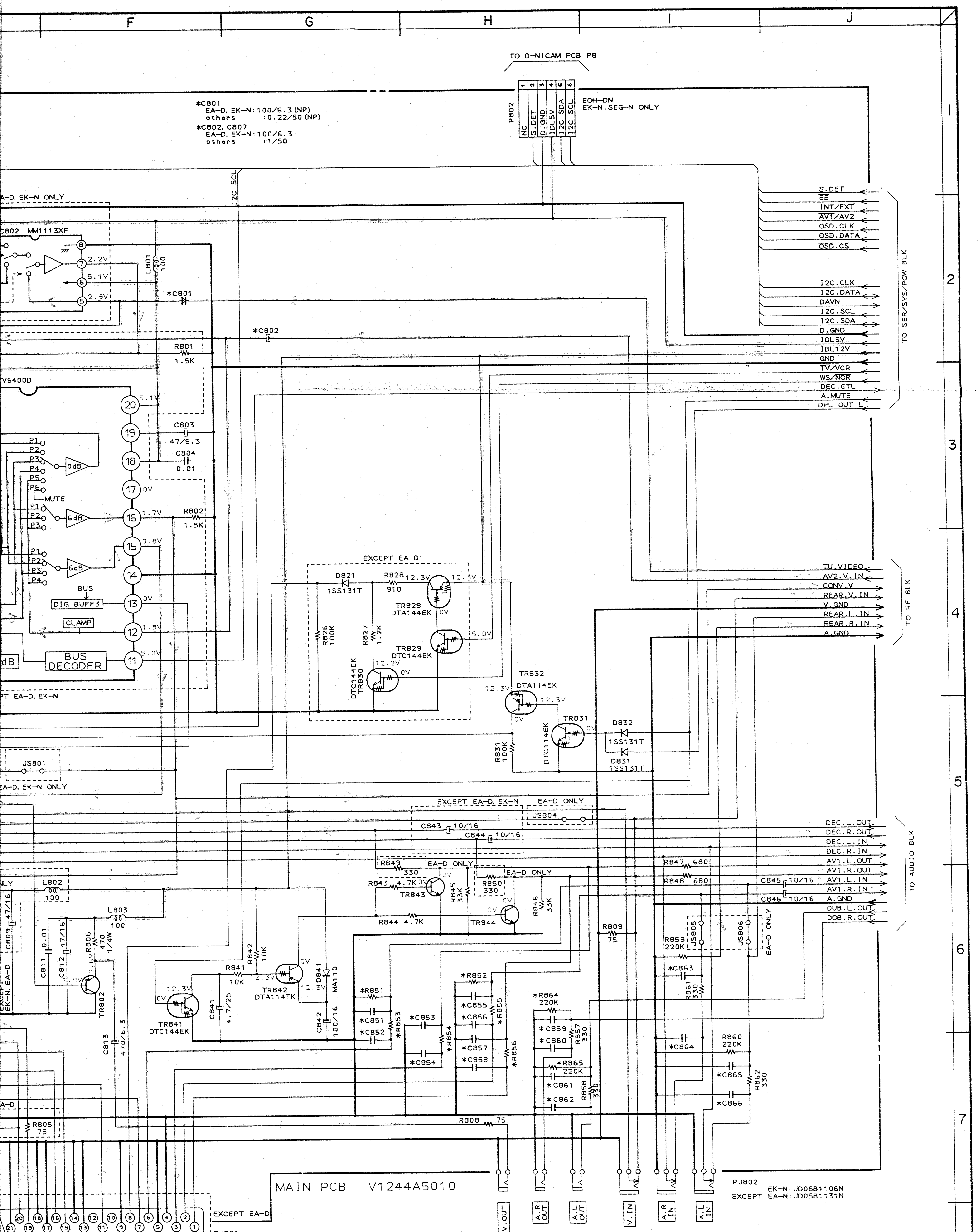
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μF WV
ALL STANDARD NPN TRANSISTOR IS 2SD601A
ALL STANDARD PNP TRANSISTOR IS 2SB709A

VS-G2DPL EA-D/EK-N/
EOG-D/EOH-DN/SEG-N
MAIN 2/6
PRE AMP BLK
SCHEMATIC DIAGRAM
No.15-3 V124403M
A1


A
B
C
D
E
1
2
3
4
5
6
7
8
TO VIDEO BLK
AFC-H
OSD.IN
MIX.OUT
APC.DET
V.GND
I2C SDA
INT/EXT
AV1/AV2
EA-D, EK-N ONLY
IC802 MM1113XF
R871 150K
C871 0.01
C872 47/6.3
R872 15K
C873 33P
L871 100
IC871
LC74763-9143
Vss
XTAL-In2
XTAL-out1
HSYNC-out
XTAL.In2
XTAL.out2
XTAL-In2
OSD CS
OSD DATA
OSD CLK
SECAM
525/625
NTSC/PAL
3.58/4.43
RST
VDD1
SYNC-dot
VCO.-out
VCO.-In
FC
AMP.out
AMP.In
PD.out
Vss
SEPo
SYNCIn
CVor
CVIn
VDD2
CVout
FL871
V1184-0498
VCO
JS871
R803 100
TR871
R873 1.5K
R874 220
TR872
R875 1.5K
R876 390
TR873
C874 0.022 (M)
R877 1K
C875 6800P (M)
R878 6.8K
C885 22P
R879 1.5K
C876 1/50
C877 0.1
C878 1200P
R880 1K
L872 10
C879 130P
EXCEPT EA-D, EK-N
C880 47/6.3
R881 470
L873 6.8
C881 36P
R882 1.5K
TR874
C884 20P
X871 17.73MHz
C883 20P
C882 0.47/50
IC801 STV6400D
CLAMP
BUS
DIG BUFF1
DIG BUFF2
DIG BUFF3
MUTE
0dB
6dB
-6dB
BUS DECODER
C805 1/50
C806 1/50
*C807
EXCEPT EA-D, EK-N
C891 0.1
R893 680K
IC892
SDA5649X
VSSA
VSSD
N.C
SCL
SDA
CS0
VCS
N.C
DAVN
EHB
VddA
VddD
N.C
CVBS
IREF
VCO1
PD2
N.C
PD1
TI
R895 100K
C894 0.033
R894 2.2K
C893 10P
I2C CLK
I2C DATA
DAVN
C895 0.033
R896 6.8K
R897 1.2M
C896 2200P
R898 6.8K
R899 620K
EXCEPT EA-D
JS801
EA-D, EK-N ONLY
JS810
EOH-DN, EOG-D, SEG-N ONLY
*TR827
DTC144EK
*R829 4.7K
*TR826
*JS809
*JS809: EARLY PRODUCTION ONLY
TR826, 827, R829: LATER PRODUCTION ONLY
JS816
EA-D ONLY
JS807
EA-D, EK-N ONLY
L802 100
EXCEPT EK-N EA-D
JS802
R804 470 1/4W
C808 0.01
C809 47/16
TR801
C810A 470/6.3
JS808
EXCEPT EK-N, EA-D
C811 0.01
C812 47/16
R806 470 1/4W
TR802
C813
EXCEPT EA-D
R807 75
R805 75
A MUTE
NC
V.GND
AV1.V.OUT
NC
NC
NC
NC
NC
NC
NC
A.GND
AV1.L.OUT
NC
AV1.R.OUT
P801 EA-D ONLY
A MUTE
D.V.IN
V.GND
D.V.OUT
RED
BLANK
GREEN
V.GND
BLUE
DEC.CTL
D.L.IN
A.GND
D.L.OUT
D.R.IN
D.R.OUT
P801 EXCEPT EA-D
EA: TO EA-OUT PCB P1
EXCEPT EA: TO IN-OUT PCB P1
AUDIO/VIDE

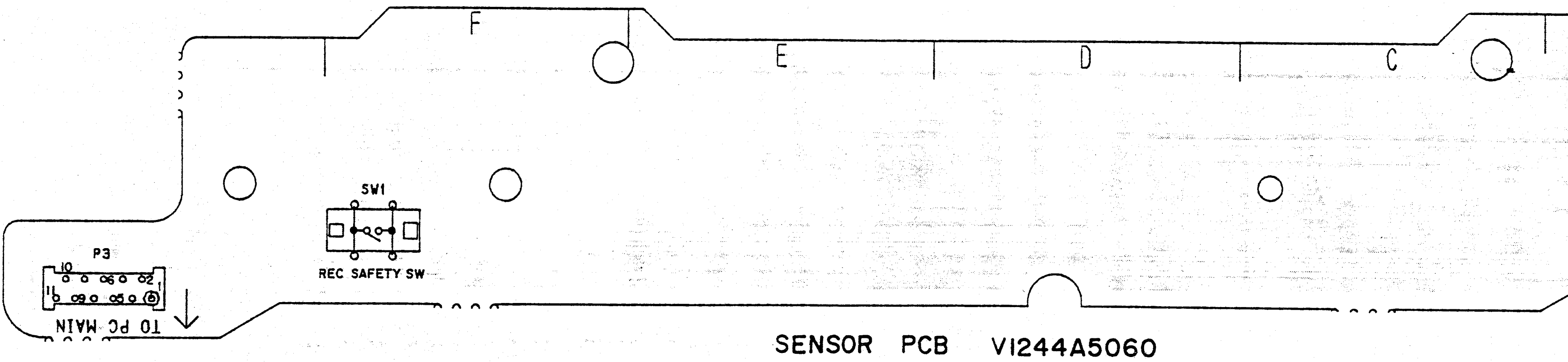
	EA–D	EXCEPT EA–D
C851~C866	open	470P
R851, R852	open	220K
R853~R856	open	330

B (POWER SUPPLY) LINE
AUDIO SIGNAL LINE
VIDEO SIGNAL LINE
R.G.B SIGNAL LINE

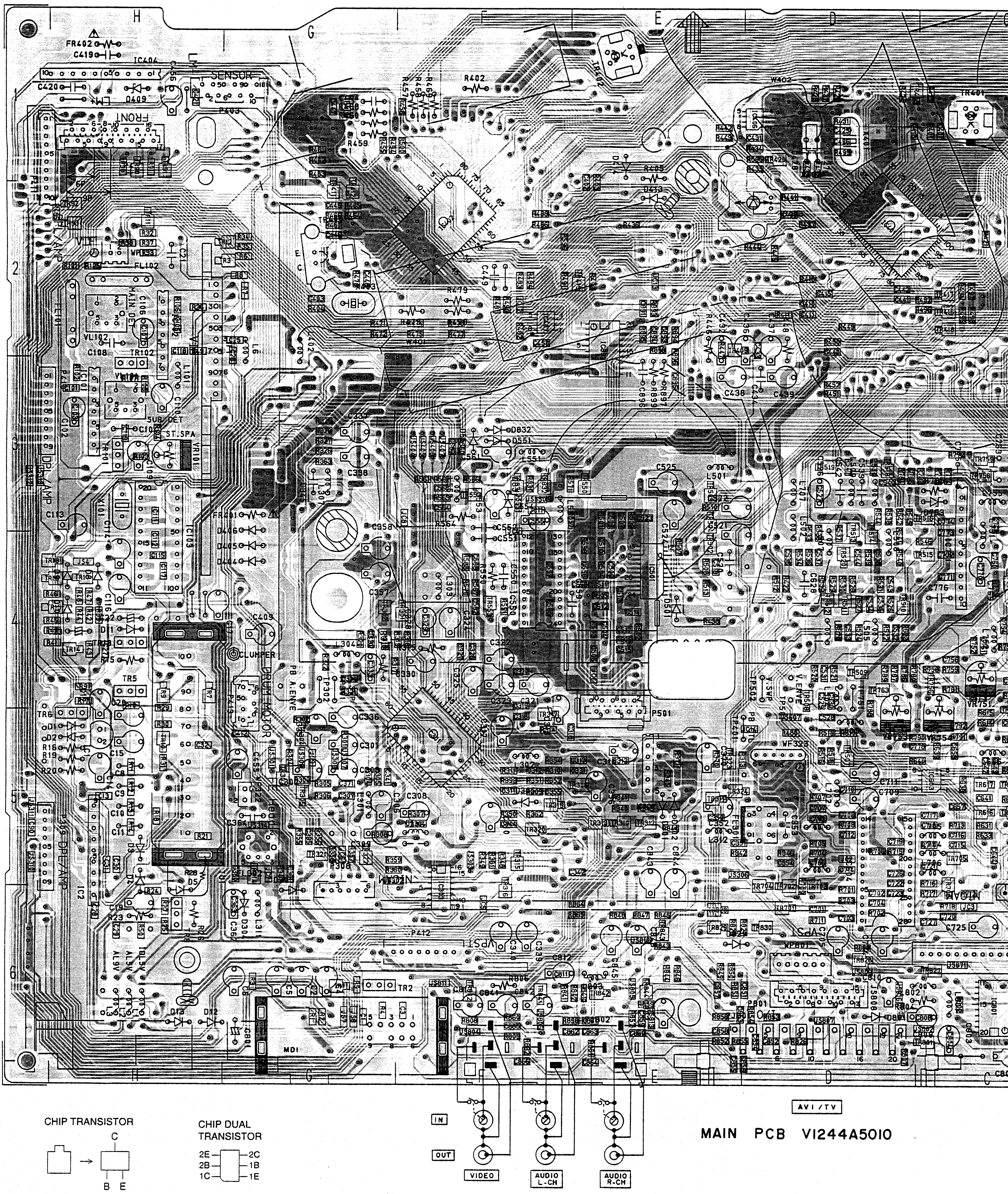

F
G
H
I
J
1
2
3
4
5
6
7
8
TO D-NICAM PCB P8
P802
NC
S.DET
D.GND
IDL5V
I2C SDA
I2C SCL
EOH-DN
EK-N.SEG-N ONLY
*C801
EA-D, EK-N:100/6.3(NP)
others :0.22/50(NP)
*C802, C807
EA-D, EK-N:100/6.3
others :1/50
I2C SCL
EA-D, EK-N ONLY
C802 MM1113XF
L801 100
*C801
*C802
R801 1.5K
V6400D
C803 47/6.3
C804 0.01
R802 1.5K
0dB
6dB
MUTE
BUS
DIG BUFF3
CLAMP
BUS DECODER
PT EA-D, EK-N
S.DET
EE
INT/EXT
AV1/AV2
OSD.CLK
OSD.DATA
OSD.CS
I2C.CLK
I2C.DATA
DAVN
I2C.SCL
I2C.SDA
D.GND
IDL5V
IDL12V
GND
TV/VCR
WS/NOR
DEC.CTL
A.MUTE
DPL OUT L
TO SER/SYS/POW BLK
EXCEPT EA-D
D821 1SS131T
R828 910
TR828 DTA144EK
R826 100K
R827 1.2K
TR829 DTC144EK
DTC144EK TR830
TR832 DTA114EK
TR831 DTC114EK
R831 100K
D832 1SS131T
D831 1SS131T
TU.VIDEO
AV2.V.IN
CONV.V
REAR.V.IN
V.GND
REAR.L.IN
REAR.R.IN
A.GND
TO RF BLK
JS801
EA-D, EK-N ONLY
EXCEPT EA-D, EK-N
EA-D ONLY
JS804
C843 10/16
C844 10/16
R849 330
EA-D ONLY
R843 4.7K
TR843
R845 33K
R850 330
R846 33K
R844 4.7K
TR844
DEC.L.OUT
DEC.R.OUT
DEC.L.IN
DEC.R.IN
AV1.L.OUT
AV1.R.OUT
AV1.L.IN
AV1.R.IN
A.GND
DUB.L.OUT
DOB.R.OUT
TO AUDIO BLK
R847 680
R848 680
C845 10/16
C846 10/16
JS805
JS806
EA-D ONLY
R859 220K
*C863
R861 330
R809 75
L802 100
L803 100
C809 47/16
C811 0.01
C812 47/16
R806 470 1/4W
TR802
C813 470/6.3
R842 10K
R841 10K
TR842 DTA114TK
D841 MA110
TR841 DTC144EK
C841 4.7/25
C842 100/16
*R851
*C851
*C852
*R853
*C853
*C854
*R854
*R852
*C855
*C856
*R855
*C857
*C858
*R856
*R864 220K
*C859
*C860
R857 330
*R865 220K
*C861
*C862
R858 330
*C864
R860 220K
*C865
R862 330
*C866
R805 75
R808 75
MAIN PCB V1244A5010
EXCEPT EA-D
PJ801
AUDIO/VIDEO1 TV
PJ802
EK-N: JD06B1106N
EXCEPT EA-N: JD05B1131N
V.OUT
A.R OUT
A.L OUT
V.IN
A.R IN
A.L IN

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μF WV
ALL STANDARD NPN TRANSISTOR IS 2SD601A
ALL STANDARD PNP TRANSISTOR IS 2SB709A

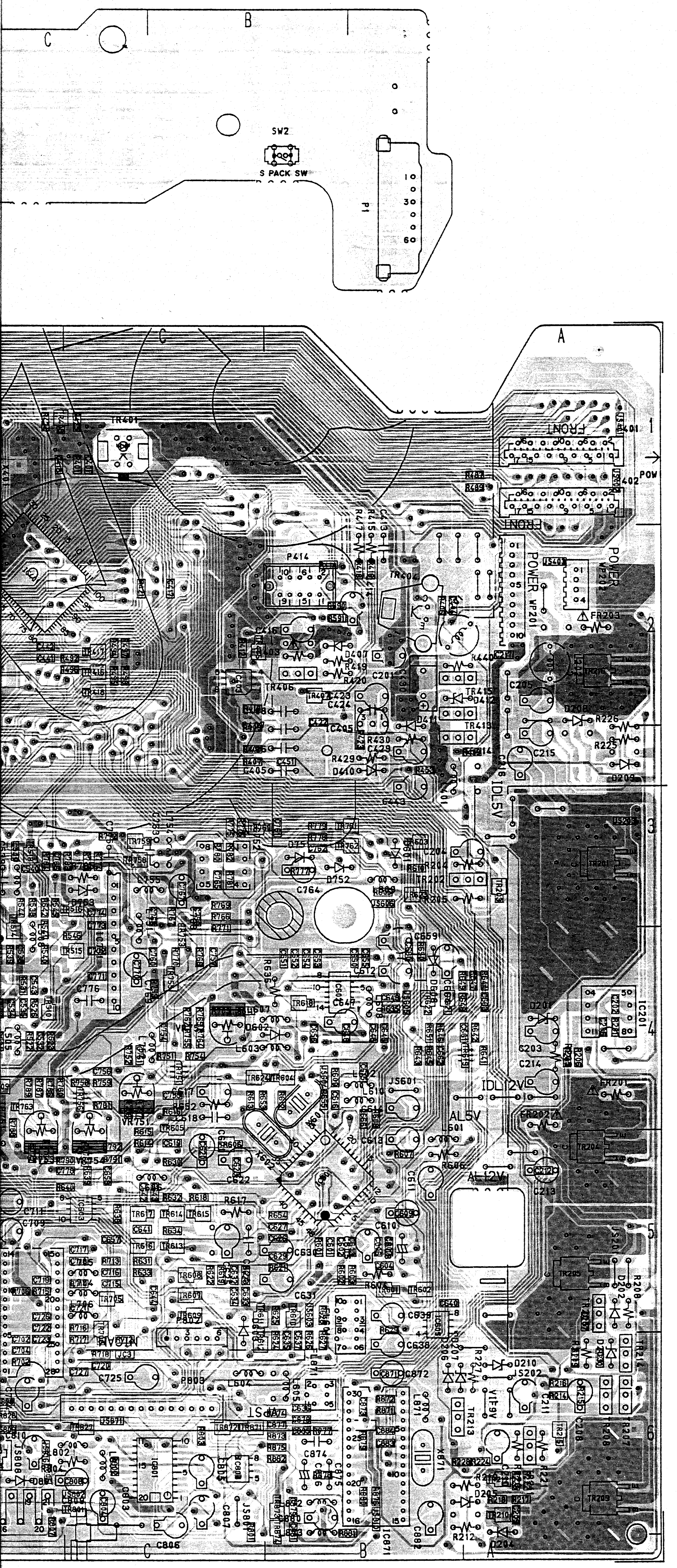
VS-G2DPL EA-D/EK-N/
EOG-D/EOH-DN/SEG-N
MAIN 3/6
OSD. & I/O BLK
SCHEMATIC DIAGRAM
No.15-4 V124404M
A1


F
E
D
C
SW1
REC SAFETY SW
P3
10
1
TO PC MAIN

SENSOR PCB V1244A5060


H
G
F
E
D
C
SENSOR
FRONT
DRUM MOTOR
CLUMPER
MD1
P501
AVI/TV
IN
OUT
VIDEO
AUDIO L-CH
AUDIO R-CH
CHIP TRANSISTOR
C
B E
CHIP DUAL TRANSISTOR
2E
2B
1C
2C
1B
1E

MAIN PCB V1244A5010



NOTE: PARTS DIFFER DEPENDING ON MODEL NUMBER.
REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT
PARTS INFORMATION.

5010

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY,
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

PRINCIPAL PARTS LOCATION

ICs

IC1	H5
IC2	H5
IC101	H3
IC102	H2,3
IC103	H3,4
IC201	A4
IC301	F5
IC302	E5
IC303	F5,6
IC401	D2
IC402	F2
IC403	C2
IC404	H1
IC405	B2,3
IC406	D1
IC501	E4
IC550	F4
IC601	B5
IC602	B4
IC604	D5
IC605	B5
IC801	C6
IC802	C6
IC871	B6
IC892	E2

TRANSISTORS

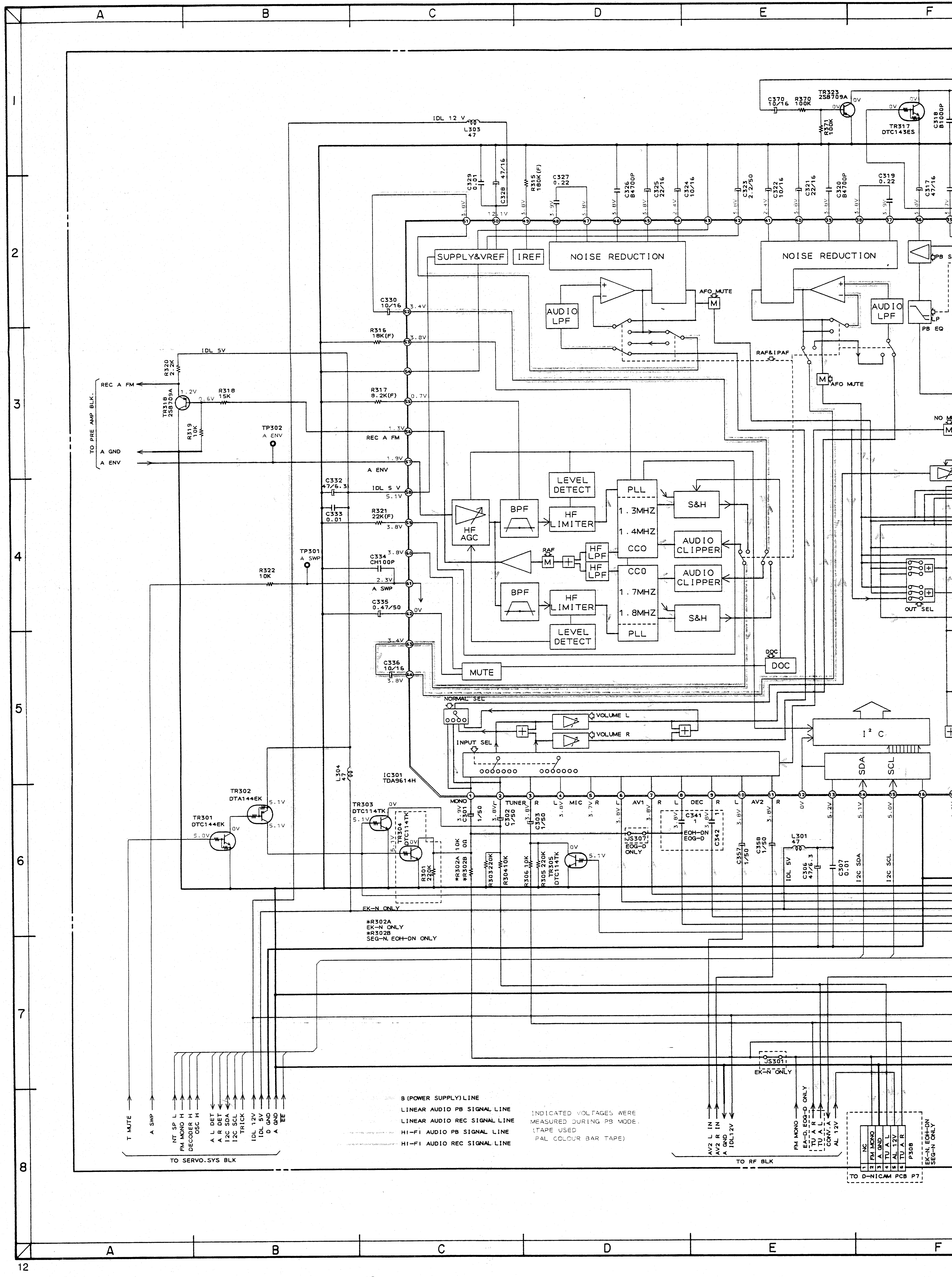
TR1	G6
TR2	G6
TR3	G,H2
TR5	H4
TR6	H5
TR7	F4
TR8	H6
TR9	F4
TR10	H5
TR11	H2
TR12	G,H2
TR13	H4
TR14	H4
TR15	H4
TR16	H4
TR17	H4
TR18	H4
TR90	H1
TR91	H1
TR92	H2
TR93	H2
TR101	H3
TR102	H3
TR201	A3
TR202	A,B3
TR203	B3
TR204	A5
TR205	A5
TR206	A5
TR207	A6
TR208	A6
TR209	A6
TR210	A6
TR211	A6
TR212	A6
TR213	B6
TR214	A6
TR215	A6
TR216	A2
TR301	F4
TR302	G4
TR303	G5
TR304	G5
TR305	G5
TR306	E5
TR310	E5
TR311	E5
TR312	E5
]TR313	E5
TR314	G5
TR315	F5
TR316	F5,6
TR317	F4,5
TR318	G4
TR319	F5
TR320	F5
TR321	G5
TR322	G5
TR323	E5
TR324	D,E5
TR401	C1
TR402	E1
TR403	G2
TR404	B2
TR405	B,C2
TR406	B2
TR407	B2
TR408	C,D1
TR409	E2
TR410	G1
TR411	G1,2
TR412	G1,2
TR413	B2
TR414	B2
TR415	B2
TR416	C2
TR417	C2
TR418	C2
TR419	E2
TR420	D1
TR502	E4
TR503	E3
TR504	E3
TR507	D5
TR508	D4
TR509	D4
TR510	D4
TR511	D4
TR512	D4
TR513	D3,4
TR514	D3,4
TR515	C4
TR516	C3
TR518	D3
TR519	D3
TR520	D4
TR550	E3
TR552	F3
TR553	F4
TR601	B5
TR602	B5
TR603	B3
TR604	B4
TR605	C4,5
TR606	C5
TR607	C5
TR608	C5
TR609	C5
TR610	B5
TR611	B,C5
TR612	B,C6
TR613	C5
TR614	C5
TR615	C5
TR616	C5
TR617	C5
TR618	B4
TR619	A,B4
TR621	B4
TR622	B4
TR623	B3
TR624	B,C4
TR701	D6
TR702	D5,6
TR703	D5,6
TR704	D5,6
TR705	C5
TR706	C5,6
TR755	C4
TR758	C3
TR759	C3
TR760	B,C3
TR761	B3
TR762	B3
TR763	D4
TR764	D5
TR801	C6
TR802	F6
TR826	D6
TR827	C6
TR828	E6
TR829	E6
TR830	D6
TR831	F3
TR832	F3
TR841	F6
TR842	E6
TR843	E6
TR844	E6
TR871	C6
TR872	C6
TR873	B6
TR874	B6

CONNECTORS

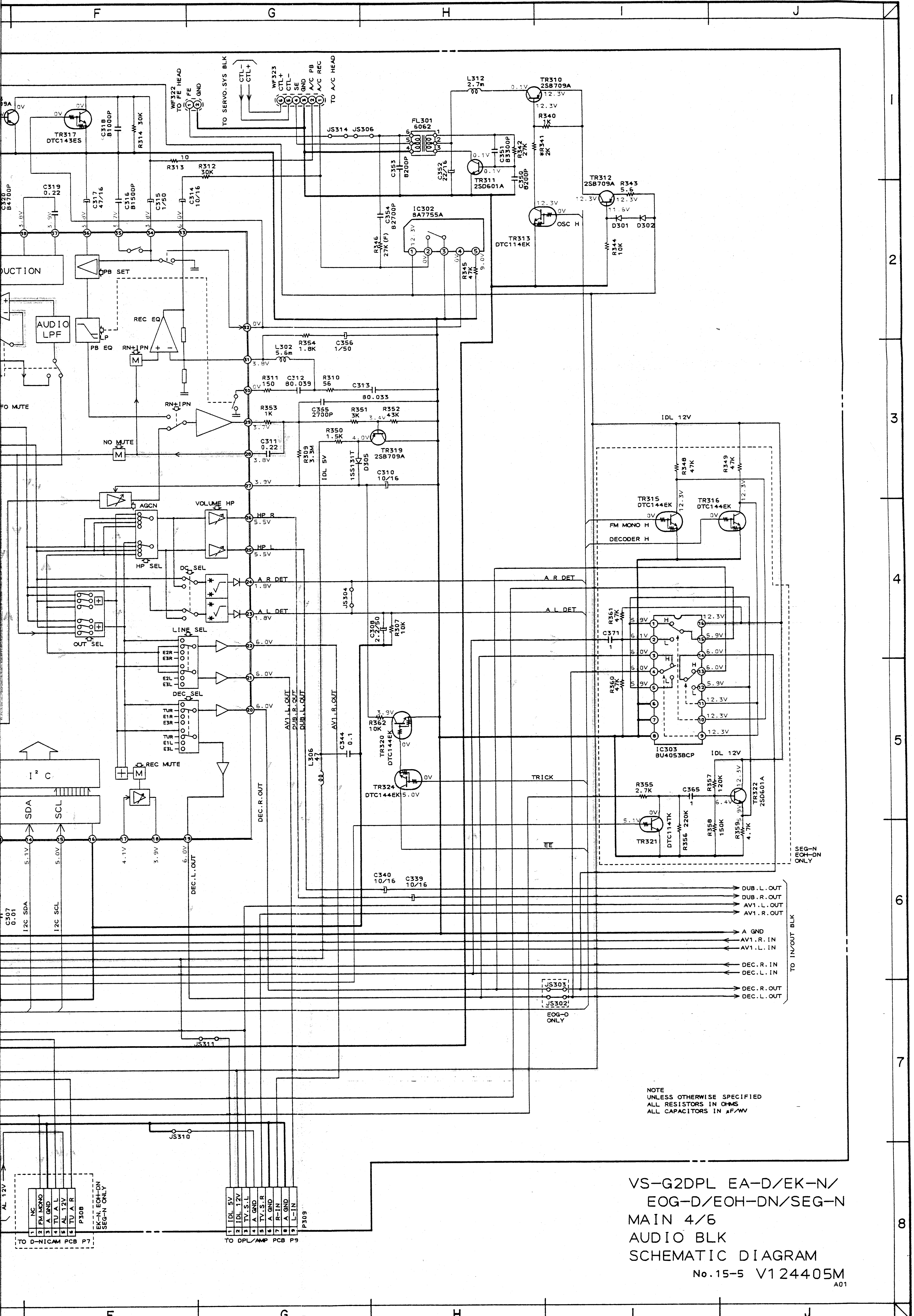
P4	H1
P308	G5,6
P309	H5
P401	A1
P402	A1
P403	G,H1
P410	H3
P411	H1
P413	G4,5
P414	B2
P501	E4,5
P801	D6
P802	C5,6
PJ801	D6
PJ802	E,F6

WIRES

WF322	G5
WF323	D5
WP15	H2
WP201	A2
WP202	A2

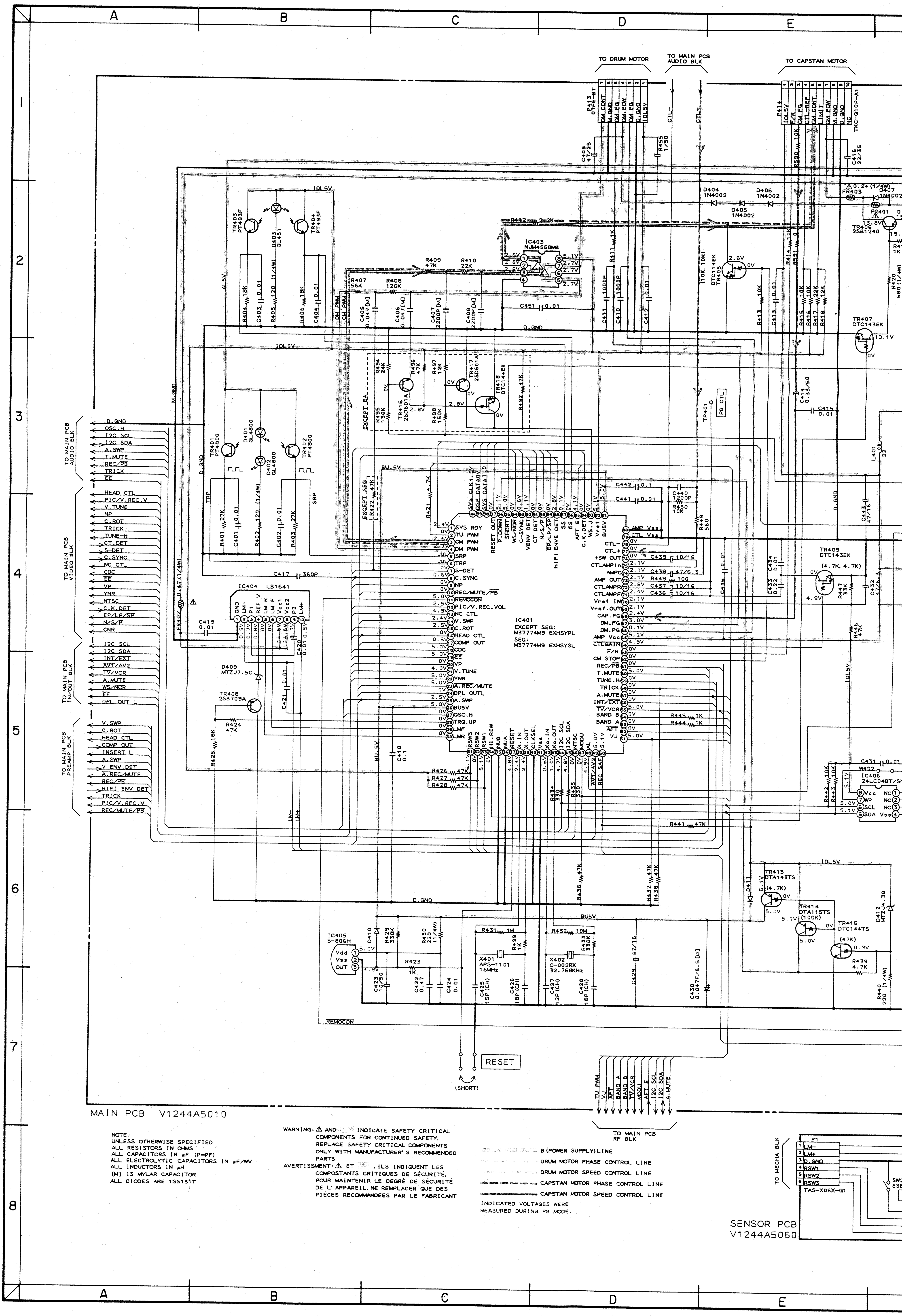


A
B
C
D
E
F
1
2
3
4
5
6
7
8
IDL 12 V
L303 47
C370 10/16
R370 100K
TR323 2SB709A
R371 100K
TR317 DTC143ES
C318 B1000P
C329 0.01
C328 47/16
R315 180K(F)
C327 0.22
C326 B4700P
C325 22/16
C324 10/16
C323 2.2/50
C322 10/16
C321 22/16
C320 B4700P
C319 0.22
C317 47/16
SUPPLY&VREF
IREF
NOISE REDUCTION
NOISE REDUCTION
AUDIO LPF
AUDIO LPF
AFO MUTE
PB EQ
RAF&IPAF
C330 10/16
R316 18K(F)
IDL 5V
R320 2.2K
REC A FM
TR318 2SB709A
R318 15K
R319 10K
TO PRE AMP BLK.
R317 8.2K(F)
TP302 A ENV
A GND
A ENV
NO M
LEVEL DETECT
PLL
S&H
1.3MHZ
1.4MHZ
CCO
AUDIO CLIPPER
HF AGC
BPF
HF LIMITER
RAF
HF LPF
1.7MHZ
1.8MHZ
C332 47/6.3
IDL 5 V
C333 0.01
R321 22K(F)
TP301 A SWP
C334 CH100P
R322 10K
A SWP
C335 0.47/50
C336 10/16
MUTE
DOC
OUT SEL
NORMAL SEL
VOLUME L
VOLUME R
INPUT SEL
I² C
SDA
SCL
L304 47
IC301 TDA9614H
MONO
TUNER
MIC
AV1
DEC
AV2
TR302 DTA144EK
TR301 DTC144EK
TR303 DTC114TK
TR304 DTC114TK
R301 220K
C301 1/50
C302 1/50
C303 1/50
*R302A 10K
*R302B 0Ω
R303 220K
R304 10K
R306 10K
R305 220K
TR305 DTC114TK
JS307 EOG-D ONLY
C341 1
EOH-DN EOG-D
C342
C357 1/50
C358 1/50
L301 47
IDL 5V
C306 47/6.3
C307 0.01
I2C SDA
I2C SCL
EK-N ONLY
*R302A EK-N ONLY
*R302B SEG-N, EOH-DN ONLY
JS301 EK-N ONLY
T MUTE
A SWP
NT SP L
FM MONO H
DECODER H
OSC H
A L DET
A R DET
I2C SDA
I2C SCL
TRICK
IDL 12V
IDL 5V
D GND
A GND
EE
TO SERVO.SYS BLK
B (POWER SUPPLY) LINE
LINEAR AUDIO PB SIGNAL LINE
LINEAR AUDIO REC SIGNAL LINE
HI-FI AUDIO PB SIGNAL LINE
HI-FI AUDIO REC SIGNAL LINE
INDICATED VOLTAGES WERE MEASURED DURING PB MODE.
(TAPE USED PAL COLOUR BAR TAPE)
AV2 L IN
AV2 R IN
A GND
IDL12V
TO RF BLK
FM MONO
EA-D, EOG-D ONLY
TU A R
TU A L
CONV. A
AL 12V
NC
FM MONO
A GND
TU A L
AL 12V
TU A R
P308
EK-N, EOH-DN SEG-N ONLY
TO D-NICAM PCB P7


F
G
H
I
J
1
2
3
4
5
6
7
8
WF322 TO FE HEAD
FE
GND
TO SERVO.SYS BLK
CTL-
CTL+
WF323
CTL+
CTL-
SE
GND
A/C PB
A/C REC
TO A/C HEAD
L312 2.7m
TR310 2SB709A
12.3V
R340 1K
*R341 2K
R342 27K
FL301 6062
JS314
JS306
C353 8200P
C352 22/16
C351 B3300P
C350 8200P
TR311 2SD601A
TR312 2SB709A
R343 5.6
D301
D302
TR313 DTC114EK
OSC H
R344 10K
IC302 BA7755A
C354 B2700P
R346 27K (F)
R345 47K
TR317 DTC143ES
C318 B1000P
R314 30K
R313
R312 30K
C319 0.22
C320 B4700P
C317 47/16
C316 B1500P
C315 1/50
C314 10/16
UCTION
PB SET
AUDIO LPF
LP
PB EQ
REC EQ
RN+IPN
L302 5.6m
R354 1.8K
C356 1/50
R311 150
C312 B0.039
R310 56
C313 B0.033
FO MUTE
R353 1K
C355 2700P
R351 3K
R352 43K
R350 1.5K
TR319 2SB709A
NO MUTE
C311 0.22
R309 3.3M
IDL 5V
1SS131T
D305
C310 10/16
AGCN
VOLUME HP
HP R
HP L
HP SEL
DC SEL
A R DET
A L DET
JS304
C308 2.2/50
R307 10K
OUT SEL
LINE SEL
DEC SEL
TR320 DTC144EK
R362 10K
TR324 DTC144EK
L306 47μ
C344 0.1
AV1.L.OUT
DUB.R.OUT
DUB.L.OUT
AV1.R.OUT
DEC.R.OUT
DEC.L.OUT
I²C
SDA
SCL
REC MUTE
C307 0.01
I2C SDA
I2C SCL
IDL 12V
R348 47K
R349 47K
TR315 DTC144EK
TR316 DTC144EK
FM MONO H
DECODER H
R361 47K
R360 47K
C371 1
IC303 BU4053BCP
IDL 12V
R355 2.7K
C365 1
R357 120K
TR322 2SD601A
TR321 DTC114TK
R356 220K
R358 150K
R359 4.7K
TRICK
EE
SEG-N EOH-DN ONLY
C340 10/16
C339 10/16
DUB.L.OUT
DUB.R.OUT
AV1.L.OUT
AV1.R.OUT
A GND
AV1.R.IN
AV1.L.IN
DEC.R.IN
DEC.L.IN
DEC.R.OUT
DEC.L.OUT
TO IN/OUT BLK
JS303
JS302
EOG-O ONLY
JS311
JS310
AL 12V
NC
FM MONO
A GND
TU A L
AL 12V
TU A R
P308
EK-N, EOH-DN SEG-N ONLY
TO D-NICAM PCB P7
IDL 5V
IDL 12V
TV.S.L
A GND
TV.S.R
A GND
R-IN
A GND
L-IN
P309
TO DPL/AMP PCB P9

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN µF/WV

VS-G2DPL EA-D/EK-N/
EOG-D/EOH-DN/SEG-N
MAIN 4/6
AUDIO BLK
SCHEMATIC DIAGRAM
No.15-5 V124405M
A01


TO DRUM MOTOR
TO MAIN PCB AUDIO BLK
TO CAPSTAN MOTOR
P413 07FE-BT
P414
TKC-G10P-A1
IC403 NJM4558MB
IC401 EXCEPT SEG: M37774M9 EXHSYPL SEG: M37774M9 EXHSYSL
IC404 LB1641
IC405 S-806H
IC406 24LC04BT/SN
X401 APS-1101 16MHz
X402 C-002RX 32.768KHz
TO MAIN PCB AUDIO BLK
TO MAIN PCB VIDEO BLK
TO MAIN PCB IN/OUT BLK
TO MAIN PCB PREAMP BLK
TO MAIN PCB RF BLK
TO MECHA BLK
TAS-X06X-G1
RESET
(SHORT)
MAIN PCB V1244A5010
SENSOR PCB V1244A5060
A
B
C
D
E
1
2
3
4
5
6
7
8

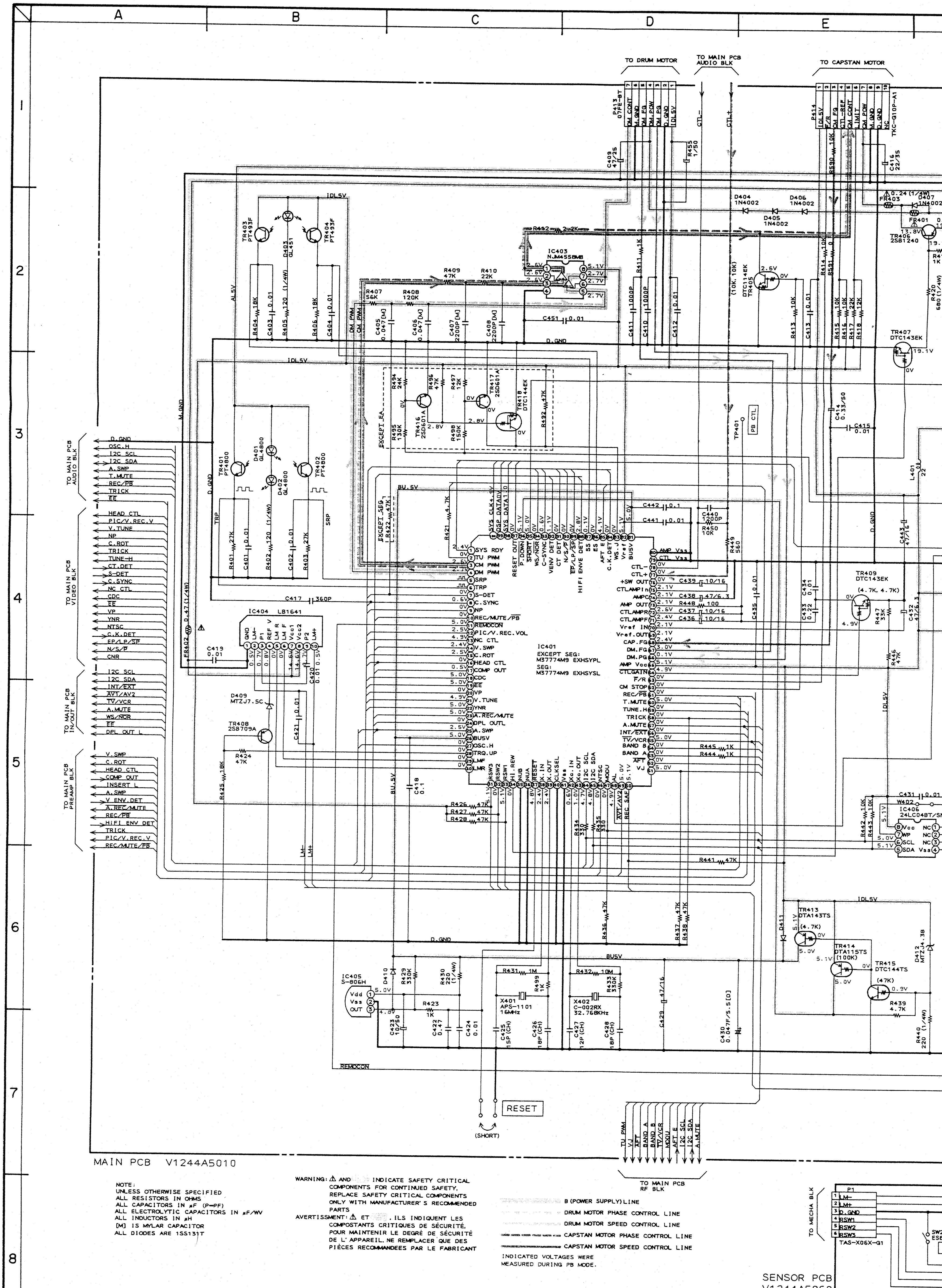
NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN µF (P=PF)
ALL ELECTROLYTIC CAPACITORS IN µF/WV
ALL INDUCTORS IN µH
[M] IS MYLAR CAPACITOR
ALL DIODES ARE 1SS131T

WARNING: ⚠ AND ▨ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSMENT: ⚠ ET ▨ . ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

B (POWER SUPPLY) LINE
DRUM MOTOR PHASE CONTROL LINE
DRUM MOTOR SPEED CONTROL LINE
CAPSTAN MOTOR PHASE CONTROL LINE
CAPSTAN MOTOR SPEED CONTROL LINE

INDICATED VOLTAGES WERE MEASURED DURING PB MODE.


A
B
C
D
E
1
2
3
4
5
6
7
8
TO DRUM MOTOR
TO MAIN PCB AUDIO BLK
TO CAPSTAN MOTOR
P413 07FE-BT
P414 TKC-G10P-A1
CTL-
CTL+
IC401 EXCEPT SEG: M37774M9 EXHSYPL SEG: M37774M9 EXHSYSL
IC403 NJM4558MB
IC404 LB1641
IC405 S-806H
IC406 24LC04BT/SN
TR401 PT4800
TR402 PT4800
TR403 PT493F
TR404 PT493F
TR405 DTC114EK
TR406 2SB1240
TR407 DTC143EK
TR408 2SB709A
TR409 DTC143EK
TR413 DTA143TS
TR414 DTA115TS
TR415 DTC144TS
TR416 2SD601A
TR417 2SD601A
TR418 DTC144EK
D401 GL4800
D402 GL4800
D403 GL451
D404 1N4002
D405 1N4002
D406 1N4002
D409 MTZJ7.5C
X401 APS-1101 16MHz
X402 C-002RX 32.768KHz
TO MAIN PCB AUDIO BLK
TO MAIN PCB VIDEO BLK
TO MAIN PCB IN/OUT BLK
TO MAIN PCB PREAMP BLK
TO MAIN PCB RF BLK
TO MECHA BLK
RESET
(SHORT)
D.GND
IDL5V
BU.5V
BUSV
REMOCON
P1 TAS-X06X-G1
LM-
LM+
D.GND
RSW1
RSW2
RSW3

MAIN PCB V1244A5010

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN µF (P=PF)
ALL ELECTROLYTIC CAPACITORS IN µF/WV
ALL INDUCTORS IN µH
[M] IS MYLAR CAPACITOR
ALL DIODES ARE 1SS131T

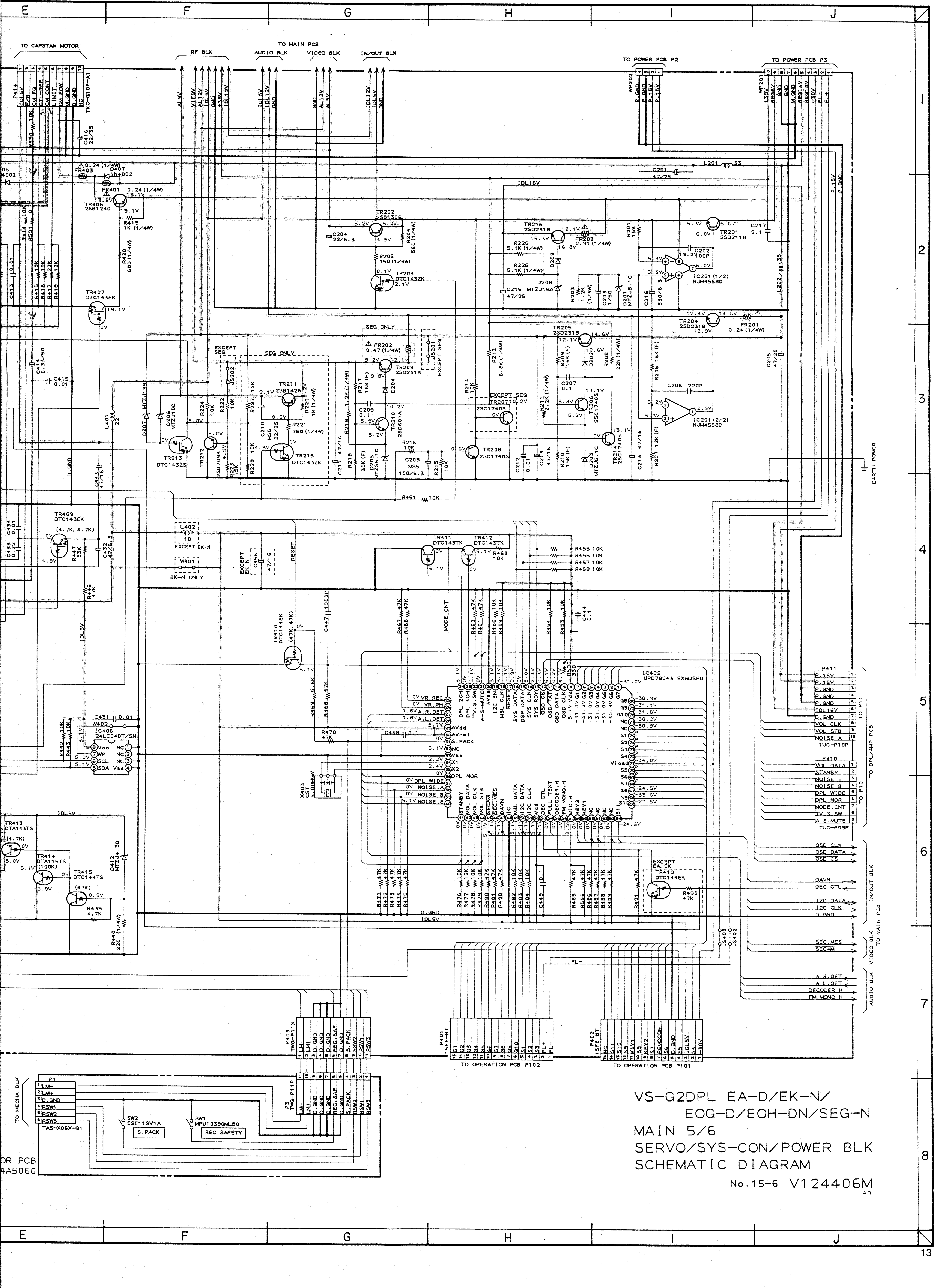
WARNING: ⚠ AND INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSMENT: ⚠ ET . ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ, POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

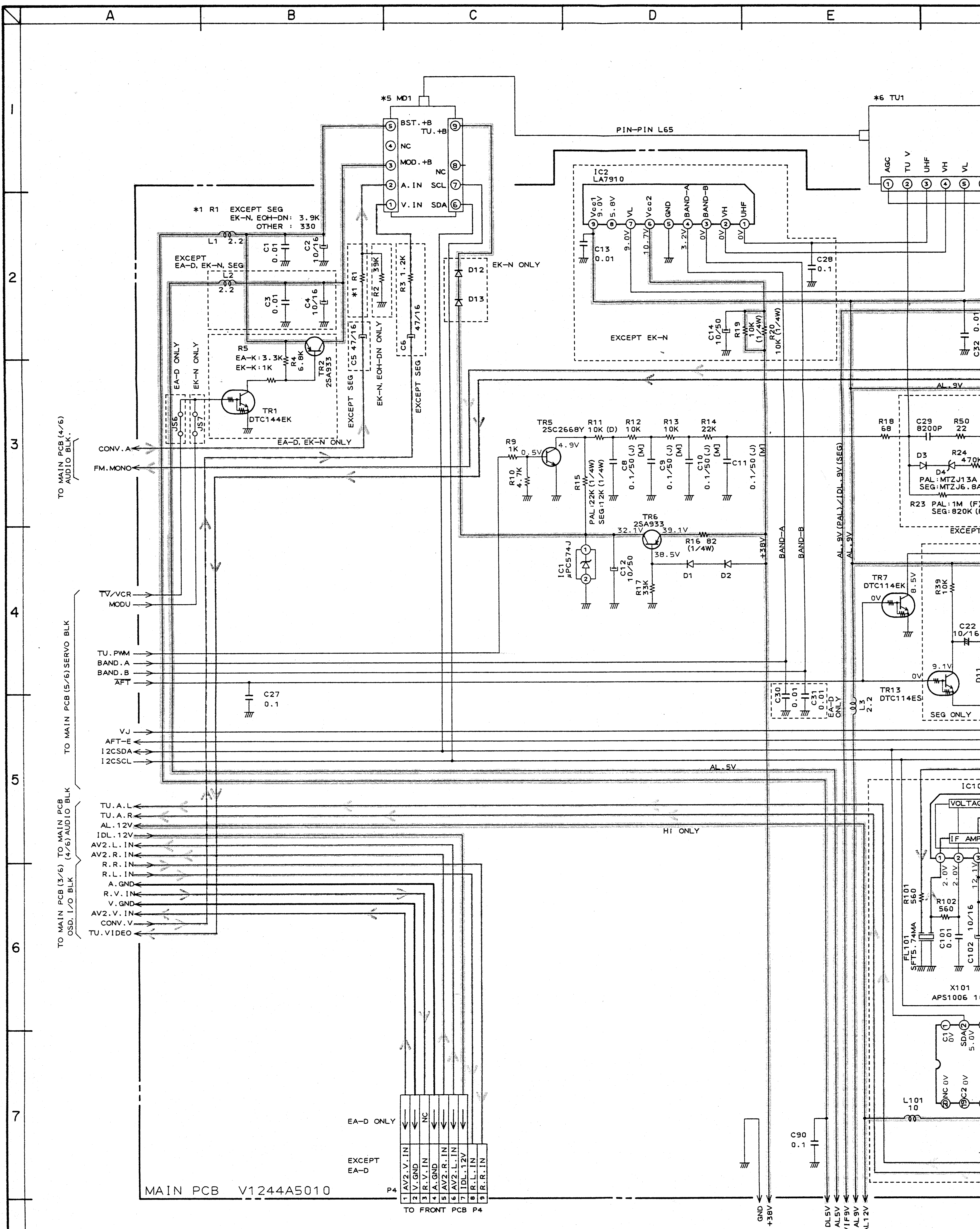
B (POWER SUPPLY) LINE
DRUM MOTOR PHASE CONTROL LINE
DRUM MOTOR SPEED CONTROL LINE
CAPSTAN MOTOR PHASE CONTROL LINE
CAPSTAN MOTOR SPEED CONTROL LINE

INDICATED VOLTAGES WERE MEASURED DURING PB MODE.

SENSOR PCB
V1244A5060


TO CAPSTAN MOTOR
P414
TKC-G10P-A1
TO MAIN PCB
RF BLK
AUDIO BLK
VIDEO BLK
IN/OUT BLK
TO POWER PCB P2
WP202
TO POWER PCB P3
WP201
L201 33
C201 47/25
IDL16V
TR202 2SB1306
TR203 DTC143ZK
TR216 2SD2318
FR203 0.91 (1/4W)
TR201 2SD2118
IC201 (1/2) NJM4558D
IC201 (2/2) NJM4558D
TR204 2SD2318
FR201 0.24 (1/4W)
TR205 2SD2318
TR206 2SC1740S
TR207 2SC1740S
TR208 2SC1740S
TR209 2SD2318
TR210 2SD601A
TR211 2SB1426
TR212 2SB709A
TR213 DTC143ZS
TR214 2SC1740S
TR215 DTC143ZK
SEG ONLY
EXCEPT SEG
FR202 0.47 (1/4W)
TR406 2SB1240
TR407 DTC143EK
FR401 0.24 (1/4W)
FR403 0.24 (1/4W)
D407 1N4002
TR409 DTC143EK
L402 10 EXCEPT EK-N
W401 EK-N ONLY
TR410 DTC144EK
TR411 DTC143TK
TR412 DTC143TK
IC402 UPD78043 EXHDSPD
IC406 24LC04BT/SN
X403 CST 5.00MGW
EARTH POWER
P411 TUC-P10P
TO P11
TO DPL/AMP PCB
P410 TUC-P09P
TO P10
IN/OUT BLK
TO MAIN PCB
VIDEO BLK
AUDIO BLK
TR413 DTA143TS
TR414 DTA115TS
TR415 DTC144TS
TR419 DTC144EK
P403 TWG-P11X
P3 TWG-P11P
P401 15FE-BT
TO OPERATION PCB P102
P402 15FE-BT
TO OPERATION PCB P101
TO MECHA BLK
P1
TAS-X06X-G1
SW2 ESE11SV1A
S.PACK
SW1 MPU10390ML80
REC SAFETY
OR PCB
4A5060

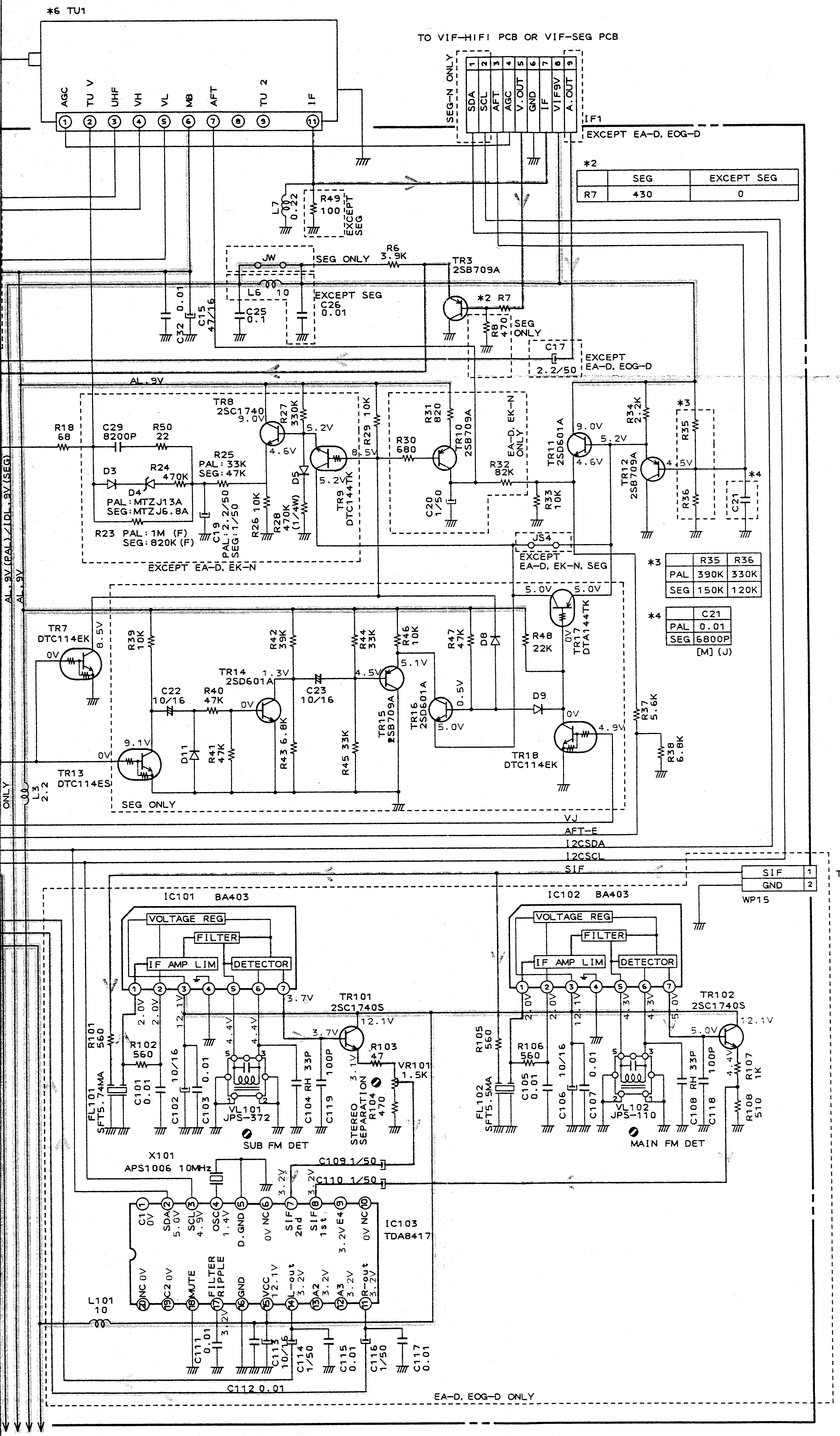
VS-G2DPL EA-D/EK-N/
EOG-D/EOH-DN/SEG-N
MAIN 5/6
SERVO/SYS-CON/POWER BLK
SCHEMATIC DIAGRAM
No.15-6 V124406M



A
B
C
D
E
1
2
3
4
5
6
7
8
*5 MD1
BST.+B
TU.+B
NC
MOD.+B
A.IN
SCL
V.IN
SDA
PIN-PIN L65
*6 TU1
AGC
TU V
UHF
VH
VL
IC2
LA7910
Vcc1 9.0V
5.8V
VL
Vcc2
GND
BAND-A
BAND-B
VH
UHF
C13 0.01
C28 0.1
C14 10/50
R19 10K
R20 10K (1/4W)
EXCEPT EK-N
*1 R1 EXCEPT SEG
EK-N, EOH-DN: 3.9K
OTHER : 330
L1 2.2
C1 0.01
C2 10/16
EXCEPT EA-D, EK-N, SEG
L2 2.2
C3 0.01
C4 10/16
*1 R1
R2 39K
R3 1.2K
C5 47/16
C6 47/16
D12
D13
EK-N ONLY
EK-N, EOH-DN ONLY
EXCEPT SEG
R5 EA-K:3.3K EK-K:1K
R4 6.8K
TR2 2SA933
TR1 DTC144EK
EA-D ONLY
EK-N ONLY
JS6
JS7
EA-D, EK-N ONLY
TO MAIN PCB (4/6) AUDIO BLK.
CONV.A
FM.MONO
TR5 2SC2668Y
R9 1K
0.5V
4.9V
R10 4.7K
R11 10K (D)
R12 10K
R13 10K
R14 22K
C8 0.1/50 (J)
C9 0.1/50 (J)
C10 0.1/50 (J)
C11 0.1/50 (J)
R15 PAL:22K (1/4W) SEG:12K (1/4W)
TR6 2SA933
32.1V
39.1V
38.5V
R16 82 (1/4W)
D1
D2
IC1 μPC574J
C12 10/50
R17 33K
+38V
BAND-A
BAND-B
AL.9V (PAL)/IDL.9V (SEG)
AL.9V
R18 68
C29 8200P
R50 22
D3
R24 470K
D4
PAL:MTZJ13A
SEG:MTZJ6.8A
R23 PAL:1M (F) SEG:820K
EXCEPT
C32 0.01
TR7 DTC114EK
0V
8.5V
R39 10K
C22 10/16
9.1V
TR13 DTC114ES
SEG ONLY
TO MAIN PCB (5/6) SERVO BLK
TV/VCR
MODU
TU.PWM
BAND.A
BAND.B
AFT
C27 0.1
C30 0.01
C31 0.01
EA-D ONLY
L3 2.2
VJ
AFT-E
I2CSDA
I2CSCL
AL.5V
TO MAIN PCB (4/6) AUDIO BLK
TU.A.L
TU.A.R
AL.12V
IDL.12V
HI ONLY
AV2.L.IN
AV2.R.IN
R.R.IN
R.L.IN
TO MAIN PCB (3/6) OSD, I/O BLK
A.GND
R.V.IN
V.GND
AV2.V.IN
CONV.V
TU.VIDEO
IC10
VOLTAG
IF AMP
R101 560
R102 560
2.0V
2.0V
12.1V
FL101 SFT5.74MA
C101 0.01
C102 10/16
X101 APS1006
C1 0V
SDA 5.0V
NC 0V
C2 0V
L101 10
C90 0.1
EA-D ONLY
EXCEPT EA-D
AV2.V.IN
V.GND
R.V.IN
A.GND
AV2.R.IN
AV2.L.IN
IDL.12V
R.L.IN
R.R.IN
NC
P4
TO FRONT PCB P4
MAIN PCB V1244A5010
GND
+38V
IDL5V
AL5V
VIF9V
AL9V
AL12V
TO MAIN PCB (5/6) POWER BLK

INDICATED VOLTAGES WERE MEASURED
DURING E-E (STOP) MODE.
(WHEN A STATION WAS BEING RECEIVED)

B (POWER SUPPLY) LINE
PB AUDIO SIGNAL LINE
REC AUDIO SIGNAL LINE
PB VIDEO SIGNAL LINE
REC VIDEO SIGNAL LINE
IF SIGNAL LINE


*6 TU1
AGC
TU V
UHF
VH
VL
MB
AFT
TU 2
IF
TO VIF-HIFI PCB OR VIF-SEG PCB
SEG-N ONLY
SDA
SCL
AFT
AGC
V.OUT
GND
IF
VIF9V
A.OUT
IF1
EXCEPT EA-D, EOG-D
L7 0.22
R49 100
EXCEPT SEG
JW
SEG ONLY
R6 3.9K
TR3 2SB709A
L6 10
EXCEPT SEG
C26 0.01
C25 0.1
C32 0.01
C15 47/16
*2 R7
R8 470
SEG ONLY
C17 2.2/50
EXCEPT EA-D, EOG-D
AL.9V
TR8 2SC1740
R27 330K
R29 10K
R31 820
TR10 2SB709A
EA-D, EK-N ONLY
TR11 2SD601A
R34 2.2K
*3
R35
R36
C21
*4
TR12 2SB709A
R18 68
C29 8200P
R50 22
R25 PAL:33K SEG:47K
R24 470K
D3
D4 PAL:MTZJ13A SEG:MTZJ6.8A
R23 PAL:1M (F) SEG:820K (F)
C19 PAL:2.2/50 SEG:1/50
R26 10K
R28 470K (1/4W)
D5
TR9 DTC144TK
R30 680
C20 1/50
R32 82K
R33 10K
EXCEPT EA-D, EK-N
JS4
EXCEPT EA-D, EK-N, SEG
TR17 DTA144TK
TR7 DTC114EK
R39 10K
R42 39K
R44 33K
R46 10K
R47 47K
D8
R48 22K
TR14 2SD601A
C22 10/16
R40 47K
C23 10/16
TR15 2SB709A
TR16 2SD601A
D9
TR18 DTC114EK
R37 5.6K
R38 6.8K
D11
R41 47K
R43 6.8K
R45 33K
TR13 DTC114ES
SEG ONLY
L3 2.2
VJ
AFT-E
I2CSDA
I2CSCL
SIF
SIF
GND
WP15
TO VIF HIFI PCB P2
IC101 BA403
IC102 BA403
VOLTAGE REG
FILTER
IF AMP LIM
DETECTOR
TR101 2SC1740S
TR102 2SC1740S
R101 560
R102 560
FL101 SFT5.74MA
C101 0.01
C102 10/16
C103 0.01
VL101 JPS-372
SUB FM DET
C104 RH 33P
C119 100P
R103 47
VR101 1.5K
STEREO SEPARATION
R104 470
R105 560
R106 560
FL102 SFT5.5MA
C105 0.01
C106 10/16
C107 0.01
VL102 JPS-110
MAIN FM DET
C108 RH 33P
C118 100P
R107 1K
R108 510
X101 APS1006 10MHz
C109 1/50
C110 1/50
IC103 TDA8417
C1
SDA
SCL
OSC
D.GND
NC
SIF 2nd
SIF 1st
E4
NC
NC
C2
MUTE
FILTER RIPPLE
GND
VCC
L-out
A2
A3
R-out
L101 10
C111 0.01
C113 10/16
C114 1/50
C115 0.01
C116 1/50
C117 0.01
C112 0.01
EA-D, EOG-D ONLY
AL5V
VIF9V
AL9V
AL12V
AL.9V (PAL)/IDL.9V (SEG)
AL.9V
F
G
H
I
J
1
2
3
4
5
6
7
8

*2

	SEG	EXCEPT SEG
R7	430	0

*3

	R35	R36
PAL	390K	330K
SEG	150K	120K

*4

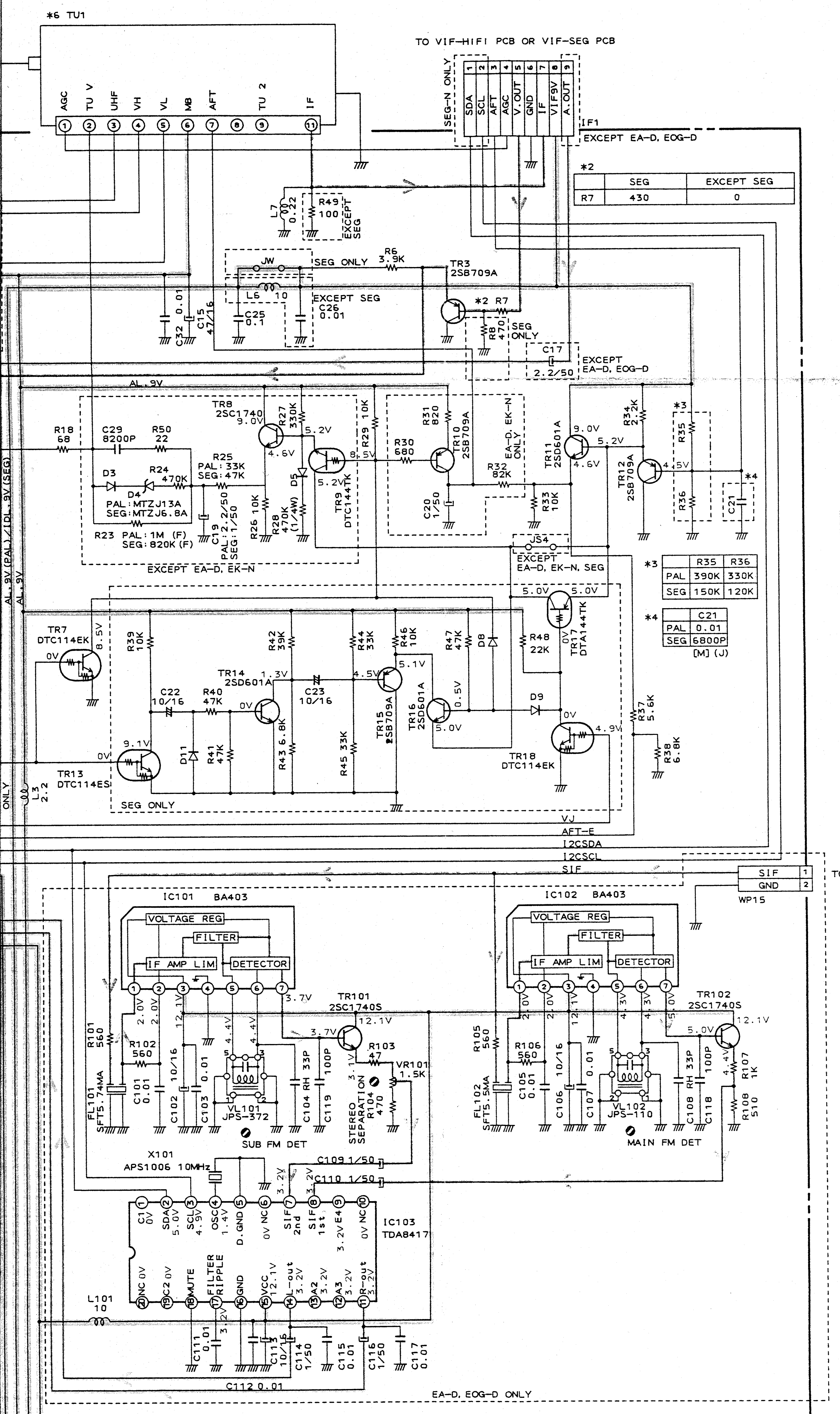
	C21
PAL	0.01
SEG	6800P

[M] (J)

	*5 MD1	*6 TU1	*7 IF1
EA-D	YAA21-1121G	TELE1-012A	
EK-N	MDLP3E008A	TELB1-016A	EX-HIFI-EK
EOG-D	YAA21-1045H	TELE4-045A	EX-HIFI-EOG
EOH-DN	YAA21-1045H	TELE4-045A	EX-HIFI-EOH
SEG-N	YAA41-0081G	TELE4-049A	EX-HIFI-SEG

NOTE:
UNLESS OTHERWISE SPECIFIE
ALL RESISTORS IN OHMS 1/10W (J)
ALL CAPACITORS IN μF 50WV
ALL ELECTROLYTIC CAPACITORS IN μF/WV (M)
ALL INDUCTORS IN μH (J)
ALL DIODES IS 1SS131T

VS-G2DPL EA-D/EK-N/
EOG-D/EOH-DN/SEG-N
MAIN 6/6 RF BLK
SCHEMATIC DIAGRAM
No.15-7 V124407M
A0


*6 TU1
AGC
TU V
UHF
VH
VL
MB
AFT
TU 2
IF
TO VIF-HIFI PCB OR VIF-SEG PCB
SEG-N ONLY
SDA
SCL
AFT
AGC
V.OUT
GND
IF
VIF9V
A.OUT
IF1
EXCEPT EA-D, EOG-D
L7 0.22
R49 100
EXCEPT SEG
JW
SEG ONLY
R6 3.9K
TR3 2SB709A
L6 10
EXCEPT SEG
C26 0.01
C25 0.1
C32 0.01
C15 47/16
*2 R7
R8 470
SEG ONLY
C17 2.2/50
EXCEPT EA-D, EOG-D
AL.9V
TR8 2SC1740
R27 330K
R29 10K
R31 820
TR10 2SB709A
EA-D, EK-N ONLY
R34 2.2K
*3
R35
R36
*4
C21
R18 68
C29 8200P
R50 22
R25 PAL:33K SEG:47K
D3
R24 470K
D4 PAL:MTZJ13A SEG:MTZJ6.8A
R23 PAL:1M (F) SEG:820K (F)
C19 PAL:2.2/50 SEG:1/50
R26 10K
R28 470K (1/4W)
D5
TR9 DTC144TK
R30 680
C20 1/50
R32 82K
R33 10K
TR11 2SD601A
TR12 2SB709A
EXCEPT EA-D, EK-N
JS4
EXCEPT EA-D, EK-N, SEG
TR7 DTC114EK
R39 10K
R42 39K
R44 33K
R46 10K
R47 47K
D8
R48 22K
TR17 DTA144TK
TR14 2SD601A
C22 10/16
R40 47K
C23 10/16
TR15 2SB709A
TR16 2SD601A
D9
R37 5.6K
R38 6.8K
D11
R41 47K
R43 6.8K
R45 33K
TR13 DTC114ES
TR18 DTC114EK
SEG ONLY
L3 2.2
VJ
AFT-E
I2CSDA
I2CSCL
SIF
SIF
GND
WP15
TO VIF HIFI PCB P2
IC101 BA403
IC102 BA403
VOLTAGE REG
FILTER
IF AMP LIM
DETECTOR
TR101 2SC1740S
TR102 2SC1740S
R101 560
R102 560
R103 47
VR101 1.5K
STEREO SEPARATION
R104 470
FL101 SFT5.74MA
C101 0.01
C102 10/16
C103 0.01
VL101 JPS-372
C104 RH 33P
C119 100P
SUB FM DET
R105 560
R106 560
FL102 SFT5.5MA
C105 0.01
C106 10/16
C107 0.01
VL102 JPS-110
C108 RH 33P
C118 100P
R107 1K
R108 510
MAIN FM DET
X101 APS1006 10MHz
C109 1/50
C110 1/50
IC103 TDA8417
C1
SDA
SCL
OSC
D.GND
NC
SIF 2nd
SIF 1st
E4
NC
NC
C2
MUTE
FILTER RIPPLE
GND
VCC
L-out
A2
A3
R-out
L101 10
C111 0.01
C113 10/16
C114 1/50
C115 0.01
C116 1/50
C117 0.01
C112 0.01
EA-D, EOG-D ONLY
AL.9V (PAL)/(DL.9V (SEG)
AL.9V
AL5V
VIF9V
AL9V
AL12V
F
G
H
I
J
1
2
3
4
5
6
7
8

*2

	SEG	EXCEPT SEG
R7	430	0

*3

	R35	R36
PAL	390K	330K
SEG	150K	120K

*4

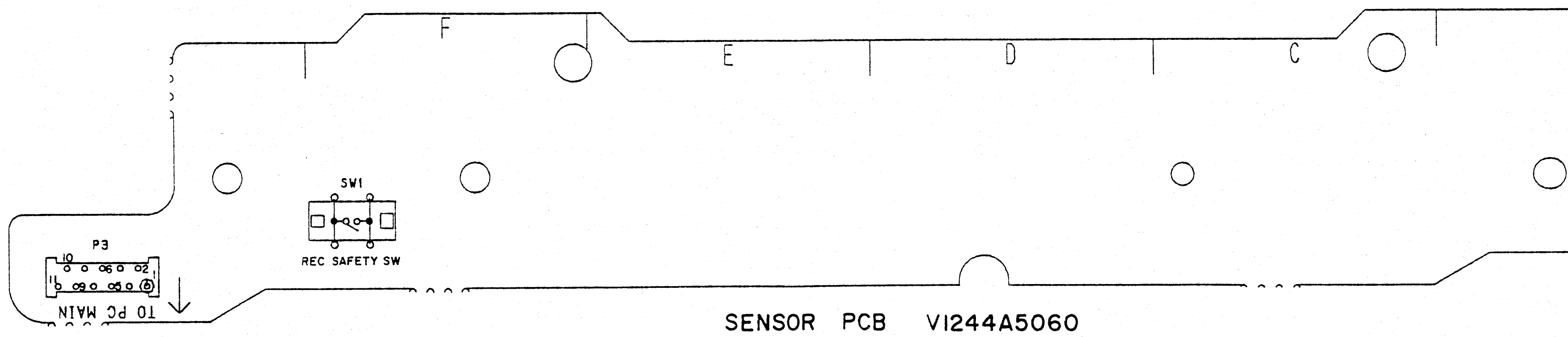
	C21
PAL	0.01
SEG	6800P

[M] (J)

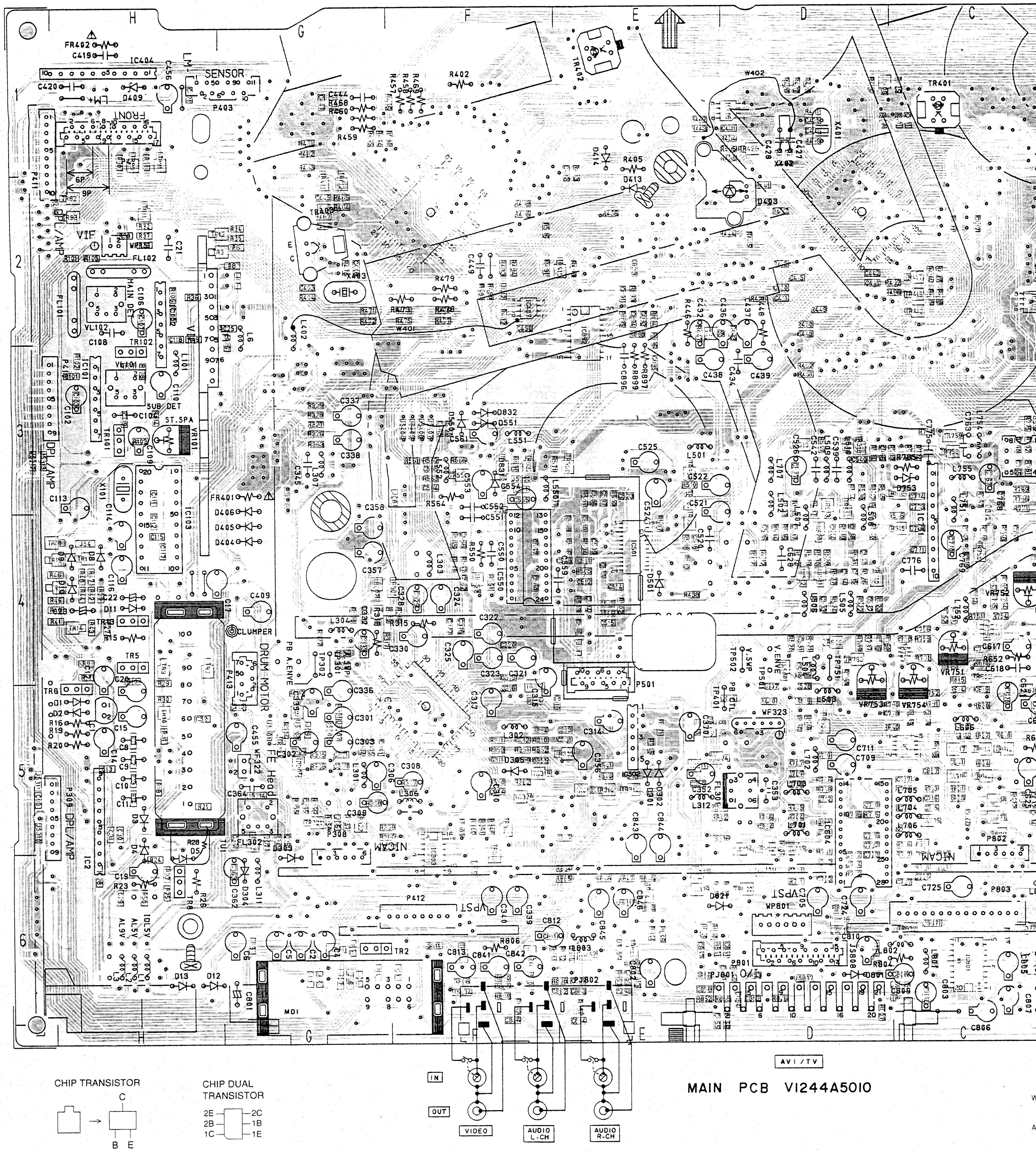
	*5 MD1	*6 TU1	*7 IF1
EA-D	YAA21-1121G	TELE1-012A	
EK-N	MDLP3E008A	TELB1-016A	EX-HIFI-EK
EOG-D	YAA21-1045H	TELE4-045A	EX-HIFI-EOG
EOH-DN	YAA21-1045H	TELE4-045A	EX-HIFI-EOH
SEG-N	YAA41-0081G	TELE4-049A	EX-HIFI-SEG

NOTE:
UNLESS OTHERWISE SPECIFIE
ALL RESISTORS IN OHMS 1/10W (J)
ALL CAPACITORS IN μF 50WV
ALL ELECTROLYTIC CAPACITORS IN μF/WV (M)
ALL INDUCTORS IN μH (J)
ALL DIODES IS 1SS131T

VS-G2DPL EA-D/EK-N/
EOG-D/EOH-DN/SEG-N
MAIN 6/6 RF BLK
SCHEMATIC DIAGRAM
No.15-7 V124407M
A0

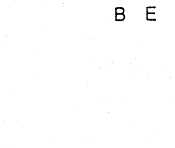

F
E
D
C
SW1
REC SAFETY SW
P3
10
1
2
TO PC MAIN

SENSOR PCB V1244A5060


H
G
F
E
D
C
1
2
3
4
5
6
FR402
C419
IC404
C420
SENSOR
LM-
LM+
FRONT
D409
P403
P411
6P
9P
DPL/AMP
VIF
FL102
MAIN DET
FL101
VL102
C108
TR102
VL101
SUB DET
ST.SPA
VR101
IC101
IC103
X101
DPL/AMP
FR401
D406
D405
D404
CLUMPER
DRUM MOTOR
FE Head
P413
TR5
TR6
P309 DPL/AMP
IC2
NICAM
P412
VPST
TR2
MD1
C801
R402
R405
D413
D414
TR402
TR401
W402
X401
W401
X403
L402
C438
C439
C337
C338
D832
D551
L551
C525
L501
C522
C521
P501
WF323
L303
L304
C322
C321
C323
P302
P306
P308
FL302
L311
VR751
VR752
VR753
VR754
C617
C618
C711
C709
L705
L704
L706
P802
NICAM
C725
P803
VPST
WP801
D827
C812
R806
C813
C841
C842
L803
PJ802
PJ801
P801
C810
L802
R804
C809
L801
C805
C806
C803
AV1/TV
IN
OUT
VIDEO
AUDIO L-CH
AUDIO R-CH

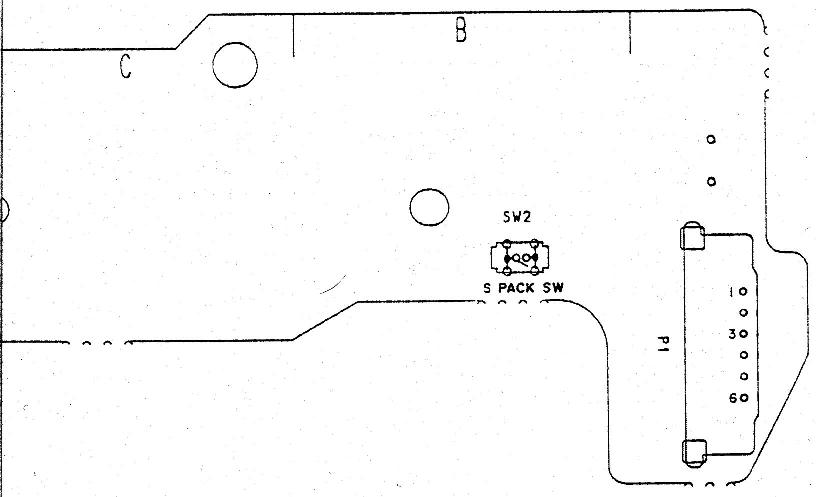
MAIN PCB V1244A5010

CHIP TRANSISTOR

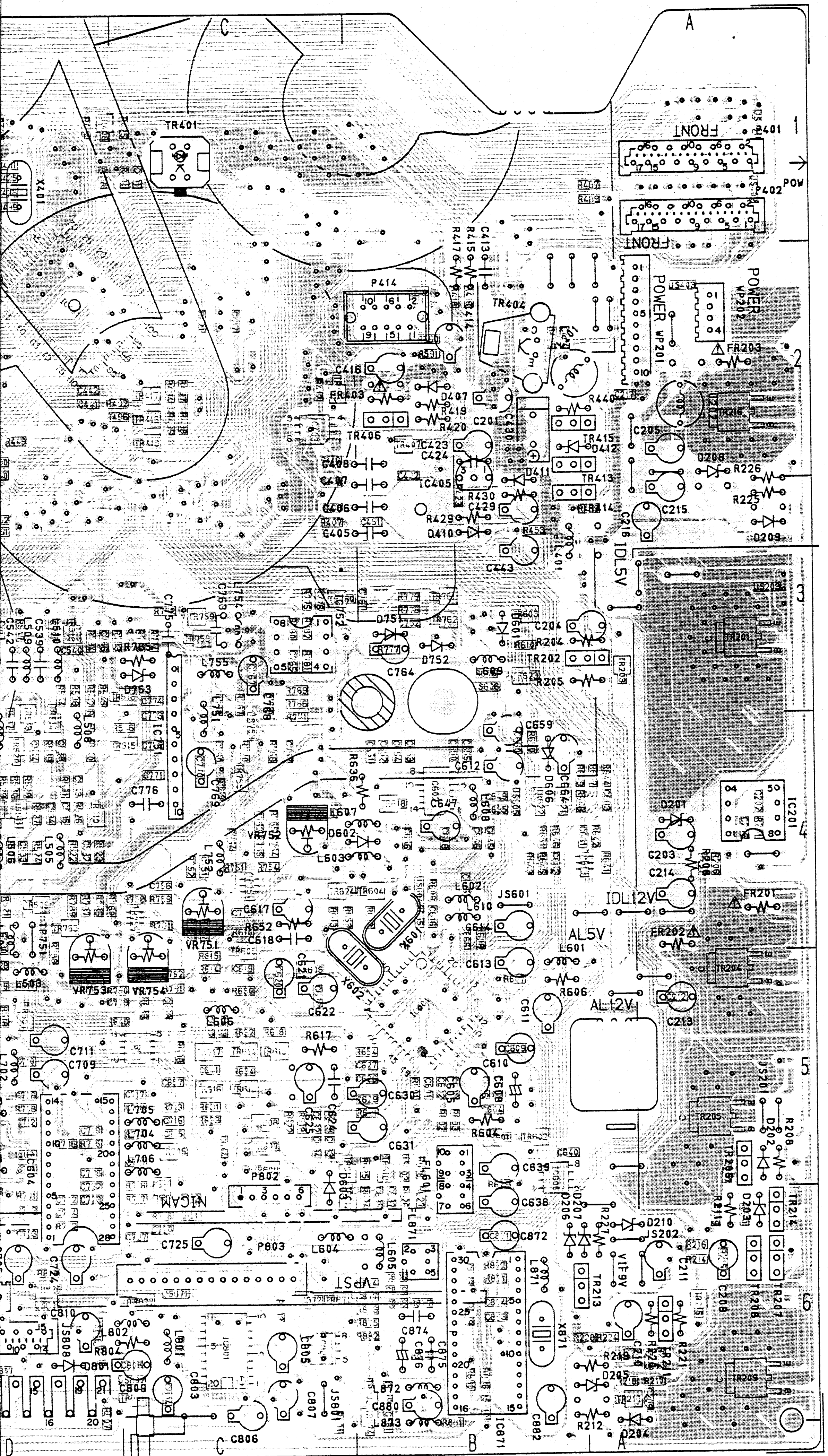


CHIP DUAL TRANSISTOR

2E
2B
1C
2C
1B
1E



B
C
SW2
S PACK SW
P1
1
30
60



A
C
B
D
1
2
3
4
5
6
FRONT
P401
P402
POW
POWER WP202
POWER WP201
TR401
P414
TR404
TR406
IC405
FR203
FR201
FR202
TR216
TR201
TR204
TR205
TR209
TR213
IC201
IDL5V
IDL12V
AL5V
AL12V
NICAM
VPST
P802
P803
VR751
VR752
VR753
VR754
X601
X602
X871
IC871
C806

TV

244A5010

NOTE: PARTS DIFFER DEPENDING ON MODEL NUMBER.
REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT PARTS INFORMATION.

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY.
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL.
NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

PRINCIPAL PARTS LOCATION

ICs

IC1	H5
IC2	H5
IC101	H3
IC102	H2,3
IC103	H3,4
IC201	A4
IC301	F5
IC302	E5
IC303	F5,6
IC401	D2
IC402	F2
IC403	C2
IC404	H1
IC405	B2,3
IC406	D1
IC501	E4
IC550	F4
IC601	B5
IC602	B4
IC604	D5
IC605	B5
IC801	C6
IC802	C6
IC871	B6
IC892	E2

TRANSISTORS

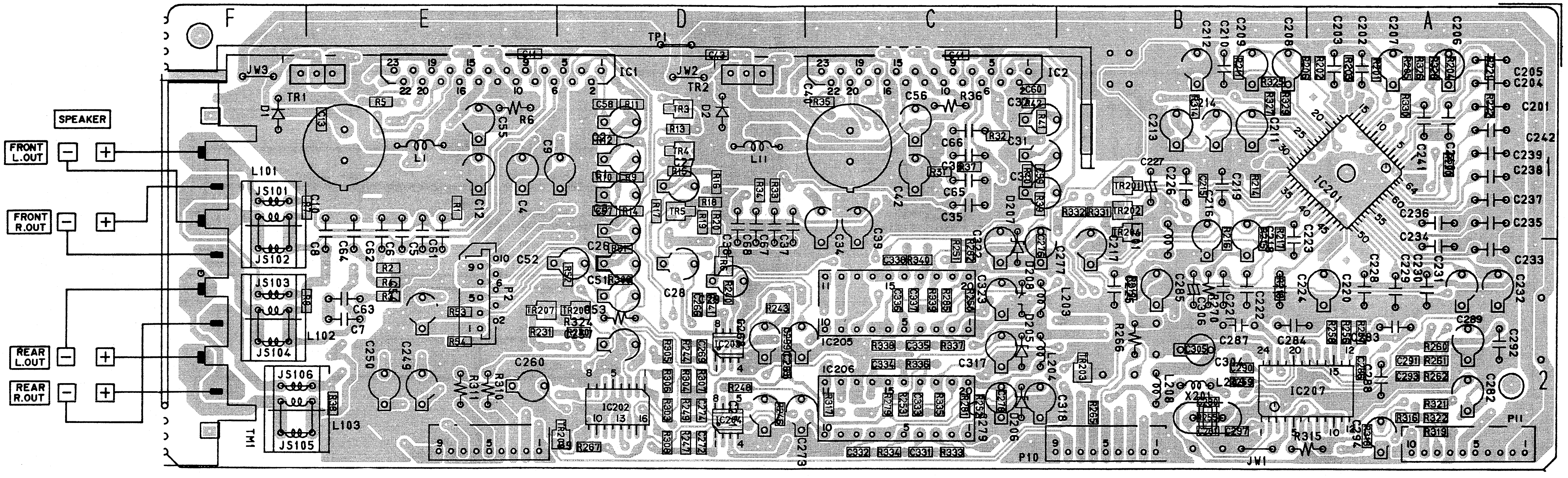
TR1	G6
TR2	G6
TR3	G,H2
TR5	H4
TR6	H5
TR7	F4
TR8	H6
TR9	F4
TR10	H5
TR11	H2
TR12	G,H2
TR13	H4
TR14	H4
TR15	H4
TR16	H4
TR17	H4
TR18	H4
TR90	H1
TR91	H1
TR92	H2
TR93	H2
TR101	H3
TR102	H3
TR201	A3
TR202	A,B3
TR203	B3
TR204	A5
TR205	A5
TR206	A5
TR207	A6
TR208	A6
TR209	A6
TR210	A6
TR211	A6
TR212	A6
TR213	B6
TR214	A6
TR215	A6
TR216	A2
TR301	F4
TR302	G4
TR303	G5
TR304	G5
TR305	G5
TR306	E5
TR310	E5
TR311	E5
TR312	E5
TR313	E5
TR314	G5
TR315	F5
TR316	F5,6
TR317	F4,5
TR318	G4
TR319	F5
TR320	F5
TR321	G5
TR322	G5
TR323	E5
TR324	D,E5
TR401	C1
TR402	E1
TR403	G2
TR404	B2
TR405	B,C2
TR406	B2
TR407	B2
TR408	C,D1
TR409	E2
TR410	G1
TR411	G1,2
TR412	G1,2
TR413	B2
TR414	B2
TR415	B2
TR416	C2
TR417	C2
TR418	C2
TR419	E2
TR420	D1
TR502	E4
TR503	E3
TR504	E3
TR507	D5
TR508	D4
TR509	D4
TR510	D4
TR511	D4
TR512	D4
TR513	D3,4
TR514	D3,4
TR515	C4
TR516	C3
TR518	D3
TR519	D3
TR520	D4
TR550	E3
TR552	F3
TR553	F4
TR601	B5
TR602	B5
TR603	B3
TR604	B4
TR605	C4,5
TR606	C5
TR607	C5
TR608	C5
TR609	C5
TR610	B5
TR611	B,C5
TR612	B,C6
TR613	C5
TR614	C5
TR615	C5
TR616	C5
TR617	C5
TR618	B4
TR619	A,B4
TR621	B4
TR622	B4
TR623	B3
TR624	B,C4
TR701	D6
TR702	D5,6
TR703	D5,6
TR704	D5,6
TR705	C5
TR706	C5,6
TR755	C4
TR758	C3
TR759	C3
TR760	B,C3
TR761	B3
TR762	B3
TR763	D4
TR764	D5
TR801	C6
TR802	F6
TR826	D6
TR827	C6
TR828	E6
TR829	E6
TR830	D6
TR831	F3
TR832	F3
TR841	F6
TR842	E6
TR843	E6
TR844	E6
TR871	C6
TR872	C6
TR873	B6
TR874	B6

CONNECTORS

P4	H1
P308	G5,6
P309	H5
P401	A1
P402	A1
P403	G,H1
P410	H3
P411	H1
P413	G4,5
P414	B2
P501	E4,5
P801	D6
P802	C5,6
PJ801	D6
PJ802	E,F6

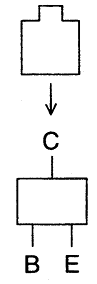
WIRES

WF322	G5
WF323	D5
WP15	H2
WP201	A2
WP202	A2

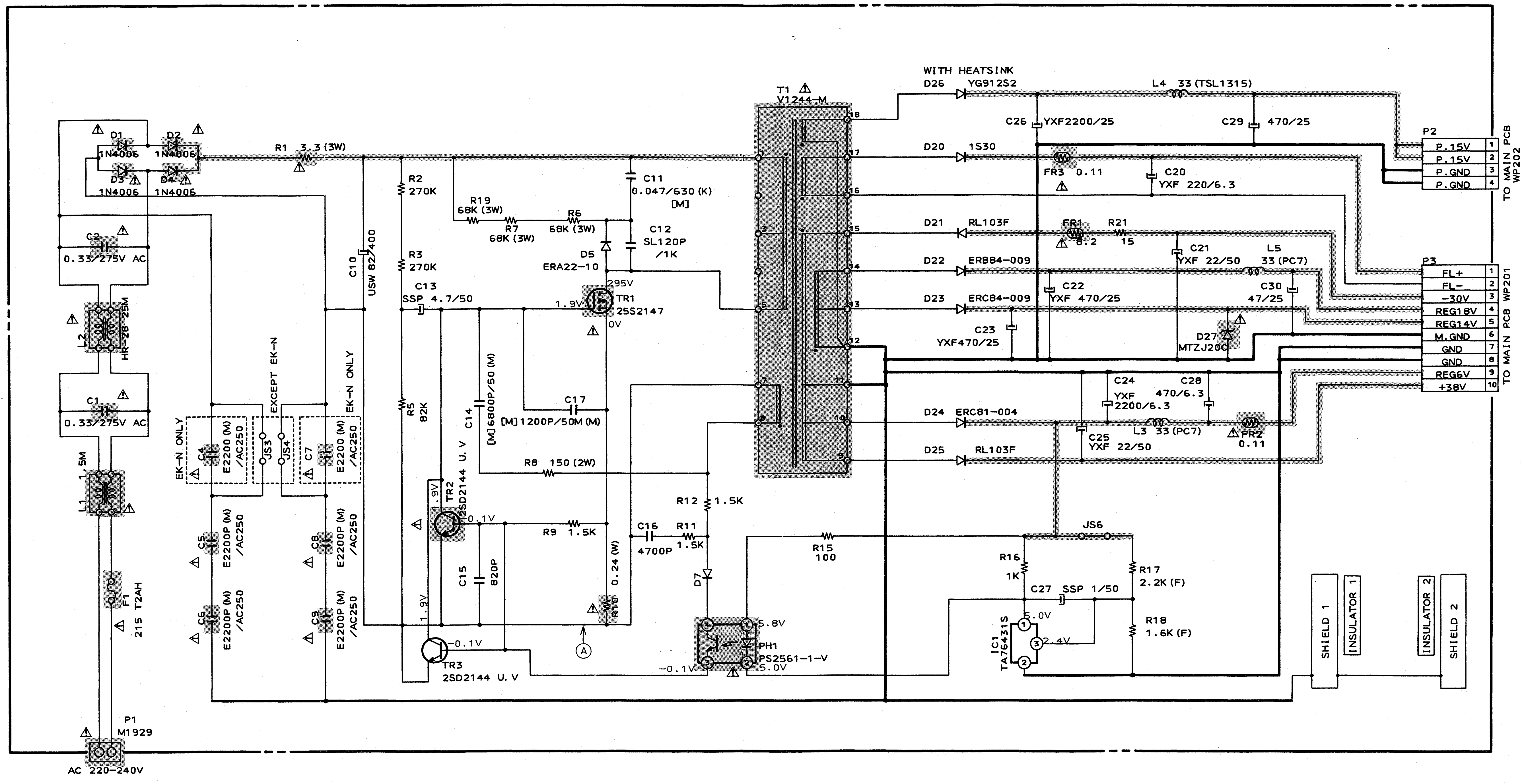

F
E
D
C
B
A
SPEAKER
FRONT L.OUT
FRONT R.OUT
REAR L.OUT
REAR R.OUT
JW3
TR1
TP1
JW2
TR2
IC1
IC2
IC201
IC202
IC203
IC204
IC205
IC206
IC207
L1
L11
L101
L102
L103
L203
L204
L208
JS101
JS102
JS103
JS104
JS105
JS106
TM1
P2
P10
P11
JW1
X201
D1
D2
D205
D206
D207
D208
TR3
TR4
TR5
TR201
TR202
TR203
TR207
TR208
R6
R36
R266
R310
R311
R315
R324
C4
C7
C9
C12
C28
C34
C35
C39
C42
C52
C55
C56
C63
C65
C66
C249
C250
C260
C273
C277
C285
C287
C289
C292
C317
C318
C201
C204
C205
C233
C235
C237
C238
C239
C242

DPL /AMP PCB V1244A5070

SINGLE CHIP TRANSISTOR



NOTE: PARTS DIFFER DEPENDING ON MODEL NUMBER. REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT PARTS INFORMATION.


WITH HEATSINK
D26 YG912S2
L4 33 (TSL1315)
T1 ⚠
V1244-M
C26 YXF2200/25
C29 470/25
P2
P.15V 1
P.15V 2
P.GND 3
P.GND 4
TO MAIN PCB WP202
D1
D2
1N4006
1N4006
D3 ⚠
D4 ⚠
1N4006
1N4006
R1 3.3 (3W)
D20 1S30
FR3 0.11
C20 YXF 220/6.3
R2 270K
C11 0.047/630 (K) [M]
R19 68K (3W)
R7 68K (3W)
R6 68K (3W)
C12 SL120P /1K
D5 ERA22-10
R3 270K
C10 USW 82/400
C2 0.33/275V AC
D21 RL103F
FR1 8.2
R21 15
C21 YXF 22/50
L5 33 (PC7)
D22 ERB84-009
C22 YXF 470/25
C30 47/25
D23 ERC84-009
C23 YXF470/25
D27 MTZJ20C
P3
FL+ 1
FL- 2
-30V 3
REG18V 4
REG14V 5
M.GND 6
GND 7
GND 8
REG6V 9
+38V 10
TO MAIN PCB WP201
C13 SSP 4.7/50
295V
1.9V
TR1 2SS2147
0V
L2 HR-28 25M
EXCEPT EK-N
EK-N ONLY
EK-N ONLY
C4 E2200 (M) /AC250
JS3
JS4
C7 E2200 (M) /AC250
R5 82K
C14 [M]6800P/50 (M)
C17 [M]1200P/50M (M)
C1 0.33/275V AC
C24 YXF 2200/6.3
C28 470/6.3
D24 ERC81-004
L3 33 (PC7)
FR2 0.11
C25 YXF 22/50
D25 RL103F
R8 150 (2W)
L1 1.5M
TR2 2SD2144 U, V
1.9V
0.1V
R9 1.5K
R12 1.5K
C16 4700P
R11 1.5K
R15 100
JS6
C5 E2200P (M) /AC250
C8 E2200P (M) /AC250
C15 820P
R10 0.24 (W)
D7
R16 1K
R17 2.2K (F)
C27 SSP 1/50
R18 1.6K (F)
F1 215 T2AH
C6 E2200P (M) /AC250
C9 E2200P (M) /AC250
1.9V
5.8V
PH1 PS2561-1-V
5.0V
5.0V
2.4V
IC1 TA76431S
SHIELD 1
INSULATOR 1
INSULATOR 2
SHIELD 2
TR3 2SD2144 U, V
-0.1V
-0.1V
Ⓐ
P1 M1929
AC 220-240V

POWER PCB V1244A5050

▨ B (POWER SUPPLY) LINE

*INDICATED VOLTAGES WERE MEASURED DURING PB MODE. THE DC VOLTMETER'S NEGATIVE INPUT WAS CONNECTED TO THE Ⓐ POINT WHEN THE PRIMARY SECTION WAS MEASURED.
*THE PRIMARY INPUT VOLTAGE WAS AC 220V.

CAUTION:
AS THE PRIMARY SIDE OF THE POWER SECTION CONTAINS HIGH VOLTAGE. THERE IS RISK OF ELECTRIC SHOCK. BE SURE TO USE EXTREME CAUTION.

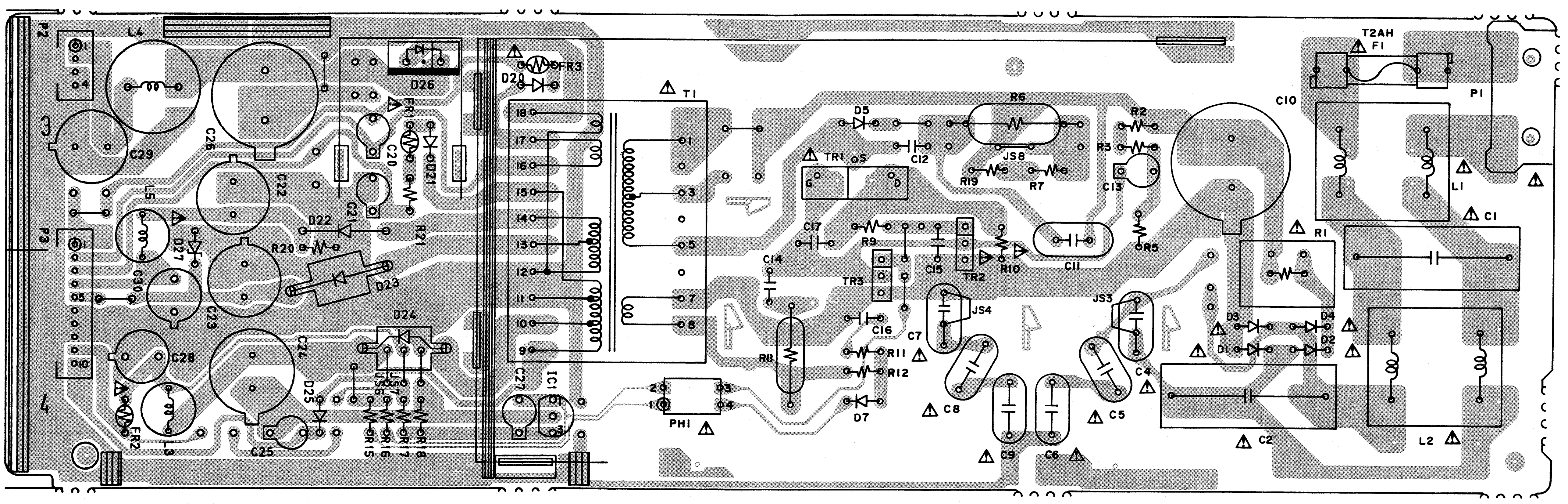
WARNING: ⚠ AND ▨ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSMENT: ⚠ ET ▨, ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ, POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN μF 16WV (P=PF)
ALL ELECTROLYTIC CAPACITORS IN μF/WV (M)

VS-G2DPL EA-D/EK-N/
EOG-D/EOH-DN/SEG-N
POWER SUPPLY
SCHEMATIC DIAGRAM

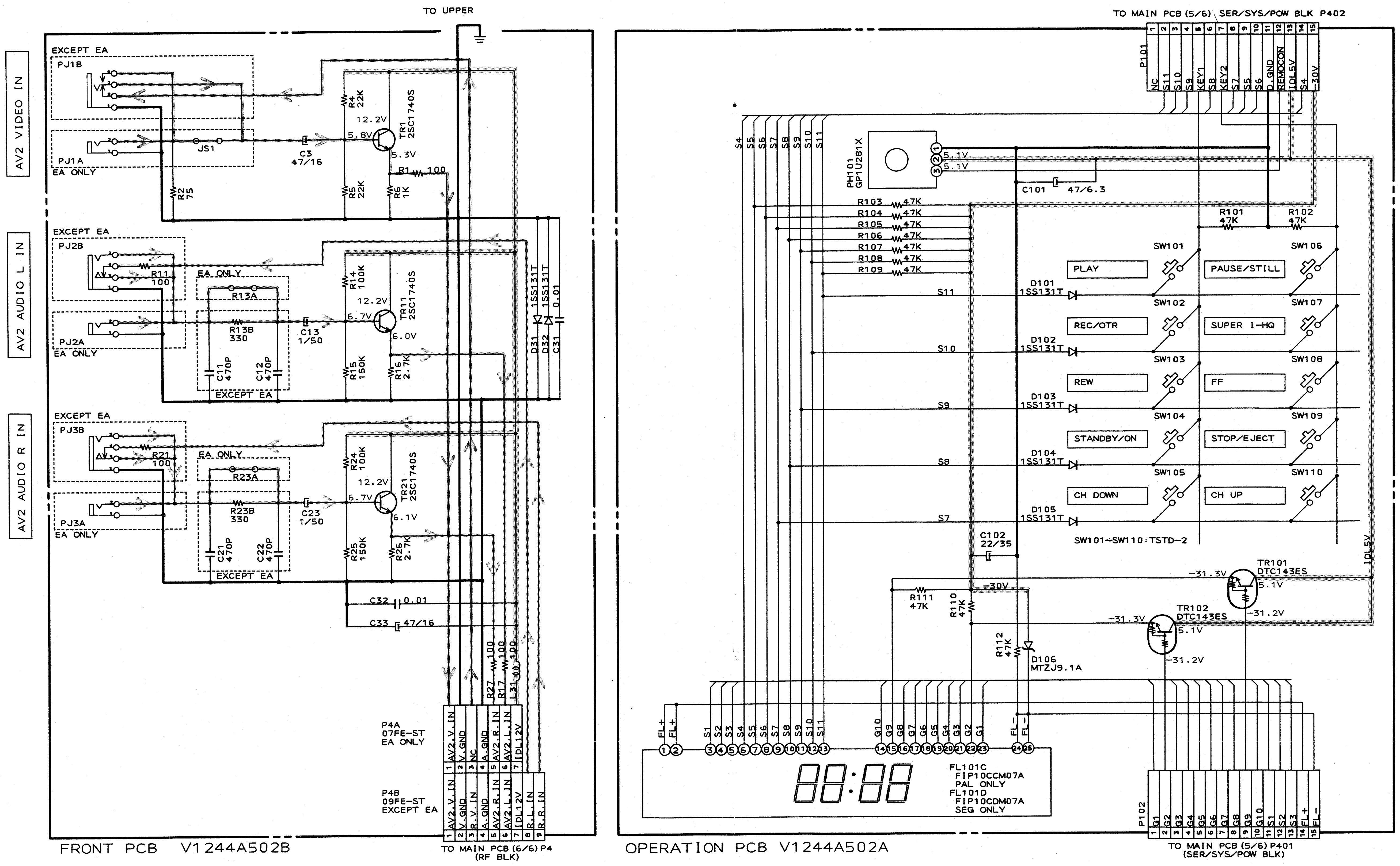
No.15-9 V124409M
A2


P2
L4
C29
C26
C22
L5
P3
D27
C30
R20
C23
C28
C24
FR2
L3
C25
D25
JS6
JS7
R15
R16
R17
R18
D24
D23
D22
R21
C21
C20
FR1
D21
D26
D20
FR3
C27
IC1
T1
PH1
TR1
D5
C12
R6
JS8
R19
R7
R2
R3
C13
C17
R9
C14
C15
TR2
TR3
R10
C11
R5
C16
R8
R11
R12
D7
C7
JS4
C8
C9
C6
JS3
C4
C5
C10
T2AH
F1
P1
L1
R1
C1
D3
D4
D1
D2
C2
L2

POWER PCB V1244A5050

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT


TO UPPER
AV2 VIDEO IN
AV2 AUDIO L IN
AV2 AUDIO R IN
EXCEPT EA
PJ1B
PJ1A
EA ONLY
JS1
C3 47/16
R2 75
R4 22K
R5 22K
R6 1K
R1 100
TR1 2SC1740S
12.2V
5.8V
5.3V
PJ2B
PJ2A
R11 100
R13A
R13B 330
C11 470P
C12 470P
C13 1/50
R14 100K
R15 150K
R16 2.7K
TR11 2SC1740S
6.7V
6.0V
PJ3B
PJ3A
R21 100
R23A
R23B 330
C21 470P
C22 470P
C23 1/50
R24 100K
R25 150K
R26 2.7K
TR21 2SC1740S
6.1V
D31 1SS131T
D32 1SS131T
C31 0.01
C32 0.01
C33 47/16
R27 100
R17 100
L31 100
P4A 07FE-ST EA ONLY
P4B 09FE-ST EXCEPT EA
AV2.V.IN
V.GND
NC
A.GND
AV2.R.IN
AV2.L.IN
IDL12V
R.V.IN
R.L.IN
R.R.IN
TO MAIN PCB (6/6) P4 (RF BLK)
FRONT PCB V1244A502B
TO MAIN PCB (5/6) SER/SYS/POW BLK P402
P101
NC
S11
S10
S9
KEY1
S8
KEY2
S7
S5
S6
D.GND
REMOCON
IDL5V
S4
-30V
PH101 GP1U281X
5.1V
C101 47/6.3
R103 47K
R104 47K
R105 47K
R106 47K
R107 47K
R108 47K
R109 47K
R101 47K
R102 47K
SW101
PLAY
SW106
PAUSE/STILL
D101 1SS131T
SW102
REC/OTR
SW107
SUPER I-HQ
D102 1SS131T
SW103
REW
SW108
FF
D103 1SS131T
SW104
STANDBY/ON
SW109
STOP/EJECT
D104 1SS131T
SW105
CH DOWN
SW110
CH UP
D105 1SS131T
SW101~SW110:TSTD-2
C102 22/35
-30V
R111 47K
R110 47K
R112 47K
D106 MTZJ9.1A
TR101 DTC143ES
-31.3V
5.1V
-31.2V
TR102 DTC143ES
FL+
FL-
S1
S2
S3
G10
G9
G8
G7
G6
G5
G4
G3
G2
G1
FL101C FIP10CCM07A PAL ONLY
FL101D FIP10CDM07A SEG ONLY
P102
TO MAIN PCB (5/6) P401 (SER/SYS/POW BLK)
OPERATION PCB V1244A502A

B (POWER SUPPLY) LINE

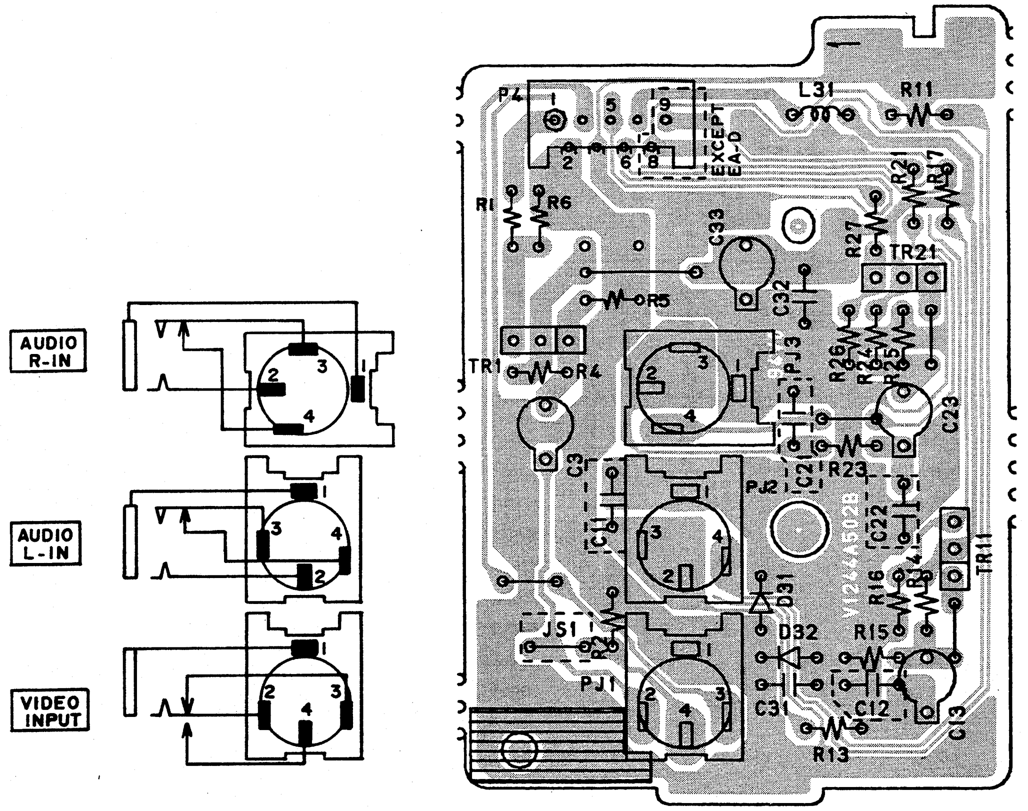
AUDIO SIGNAL LINE

VIDEO SIGNAL LINE

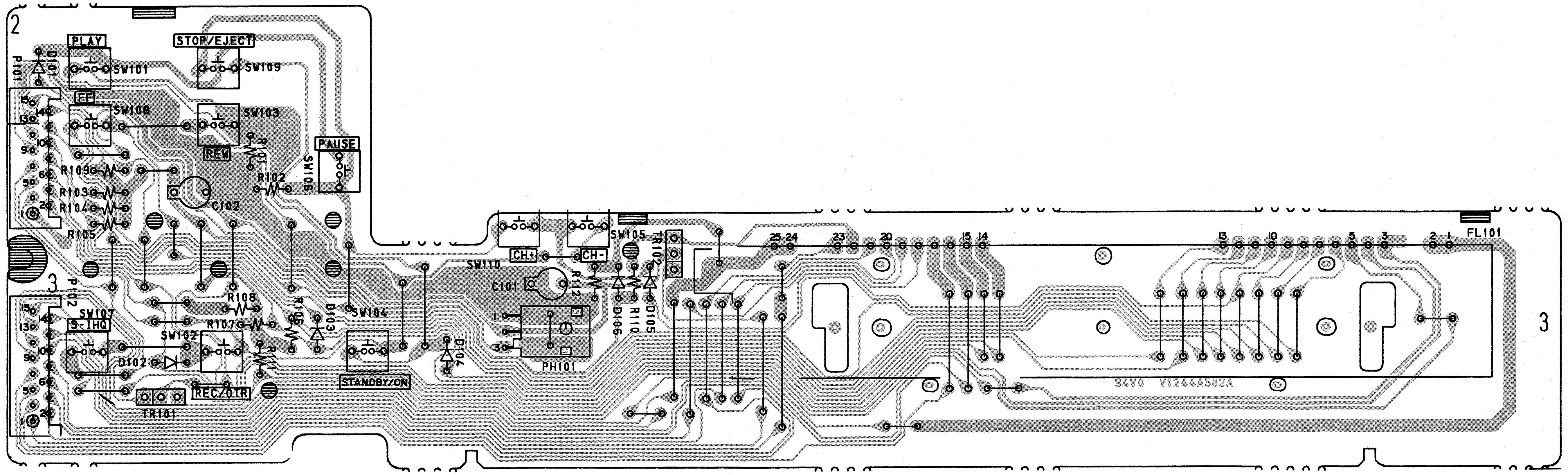
INDICATED VOLTAGES WERE MEASURED
DURING E-E (STOP) MODE.

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN µF (P=PF)
ALL ELECTROLYTIC CAPACITORS IN µF/WV

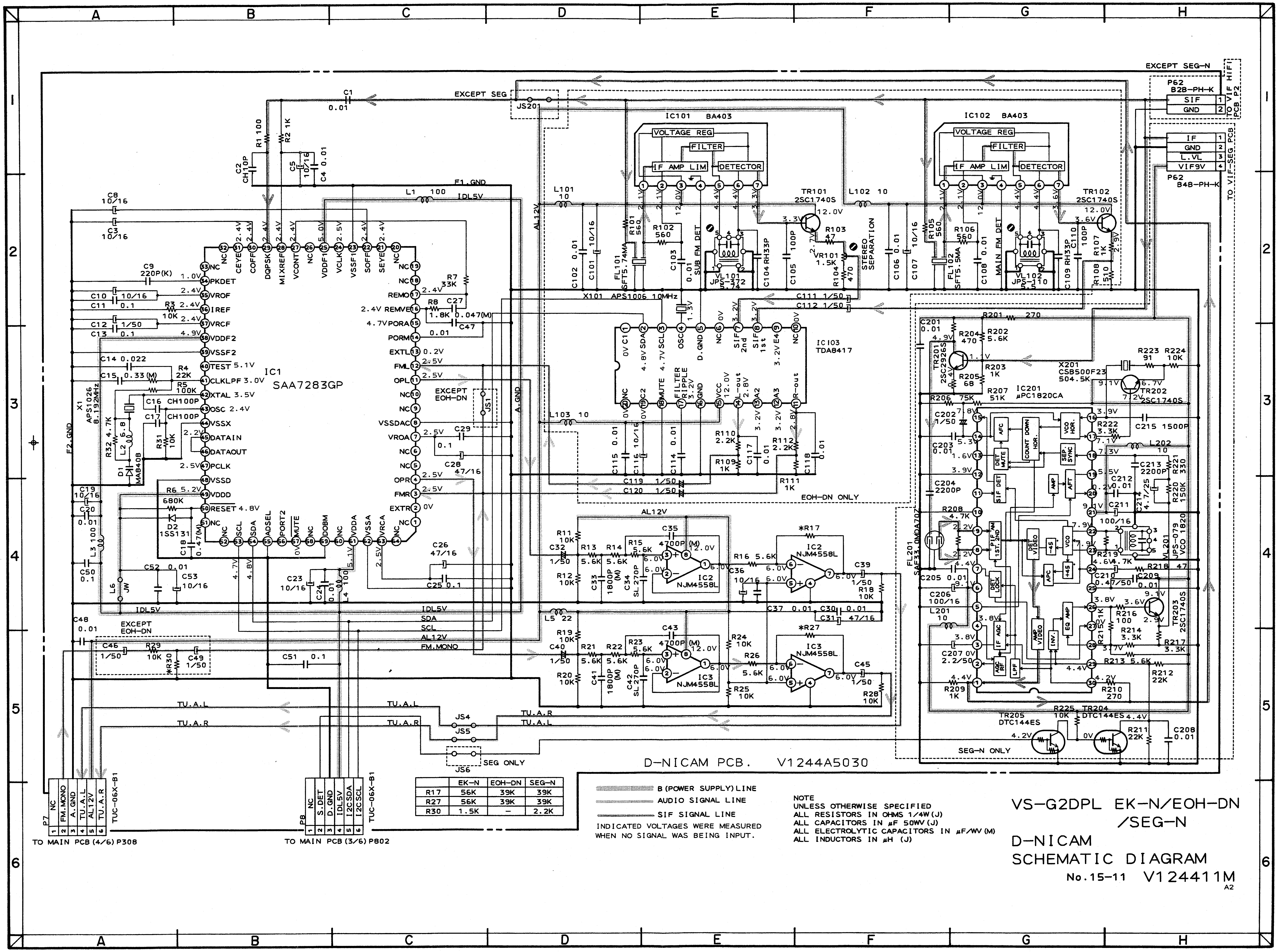
VS-G2DPL EA-D/EK-N/
EOG-D/EOH-DN/SEG-N
FRONT/OPERATION
SCHEMATIC DIAGRAMS
No.15-10 V124410M
A2


AUDIO R-IN
AUDIO L-IN
VIDEO INPUT
P4
EXCEPT EA-D
L31
R11
R1
R6
R2
R17
R27
TR21
C33
R5
C32
TR1
R4
PJ3
R26
R24
R25
R23
C23
C3
C2
C1
PJ2
C22
R16
R14
TR11
D31
V1244A502B
JS1
PJ1
D32
R15
C31
C12
C13
R13

FRONT PCB V1244A502B


PLAY
STOP/EJECT
SW101
SW109
P101
D101
FF
SW108
SW103
REW
PAUSE
SW106
R101
R102
R109
R103
R104
R105
C102
P102
SW107
S-IHQ
SW102
D102
REC/OTR
TR101
R108
R107
R111
R106
D103
SW104
STANDBY/ON
D104
SW110
CH+
CH-
SW105
TR102
C101
R112
PH101
D106
R110
D105
FL101
94V0 V1244A502A

OPERATION PCB V1244A502A


IC1 SAA7283GP
IC101 BA403
IC102 BA403
IC103 TDA8417
IC2 NJM4558L
IC3 NJM4558L
IC201 μPC1820CA
TR101 2SC1740S
TR102 2SC1740S
TR201 2SC2926S
TR202 2SC1740S
TR203 2SC1740S
TR204 DTC144ES
TR205 DTC144ES
VOLTAGE REG
FILTER
IF AMP LIM
DETECTOR
X1 APS1026 8.192MHz
X101 APS1006 10MHz
X201 CSB500F23 504.5K
FL101 SFT5.74MA
FL102 SFT5.5MA
FL201 SAF33.0MDA707
VL101 JPS-172
VL102 JPS-110
VL201 JPS-079 VCO 1820
SUB FM DET
MAIN FM DET
STEREO SEPARATION
EXCEPT SEG
EXCEPT SEG-N
EXCEPT EOH-DN
EOH-DN ONLY
SEG-N ONLY
SEG ONLY
JS201
JS1
JS4
JS5
JS6
P62 B2B-PH-K
SIF
GND
TO VIF HIFI PCB P2
P62 B4B-PH-K
IF
GND
L.VL
VIF9V
TO VIF-SEG PCB
P7
NC
FM.MONO
A.GND
TU.A.L
AL12V
TU.A.R
TUC-06X-B1
TO MAIN PCB (4/6) P308
P8
NC
S.DET
D.GND
IDL5V
I2CSDA
I2CSCL
TUC-06X-B1
TO MAIN PCB (3/6) P802
D-NICAM PCB. V1244A5030

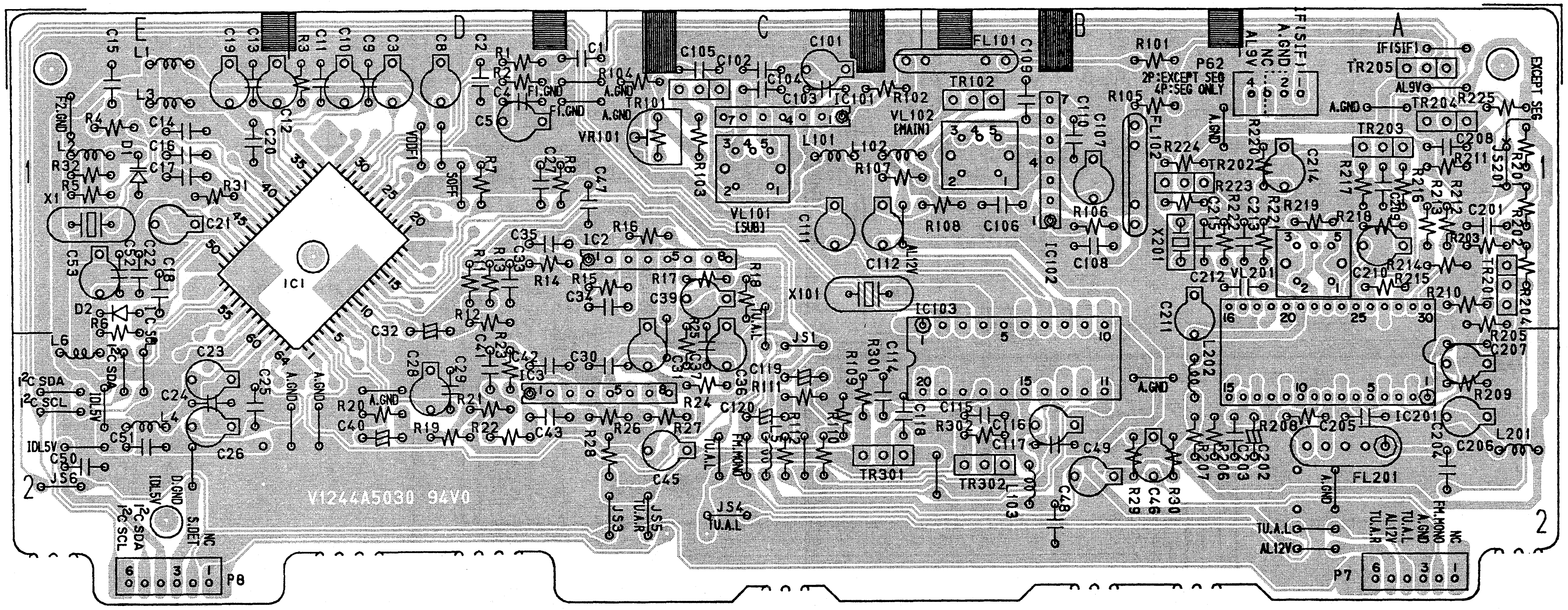
	EK-N	EOH-DN	SEG-N
R17	56K	39K	39K
R27	56K	39K	39K
R30	1.5K	–	2.2K

▬ B (POWER SUPPLY) LINE
▬ AUDIO SIGNAL LINE
▬ SIF SIGNAL LINE

INDICATED VOLTAGES WERE MEASURED
WHEN NO SIGNAL WAS BEING INPUT.

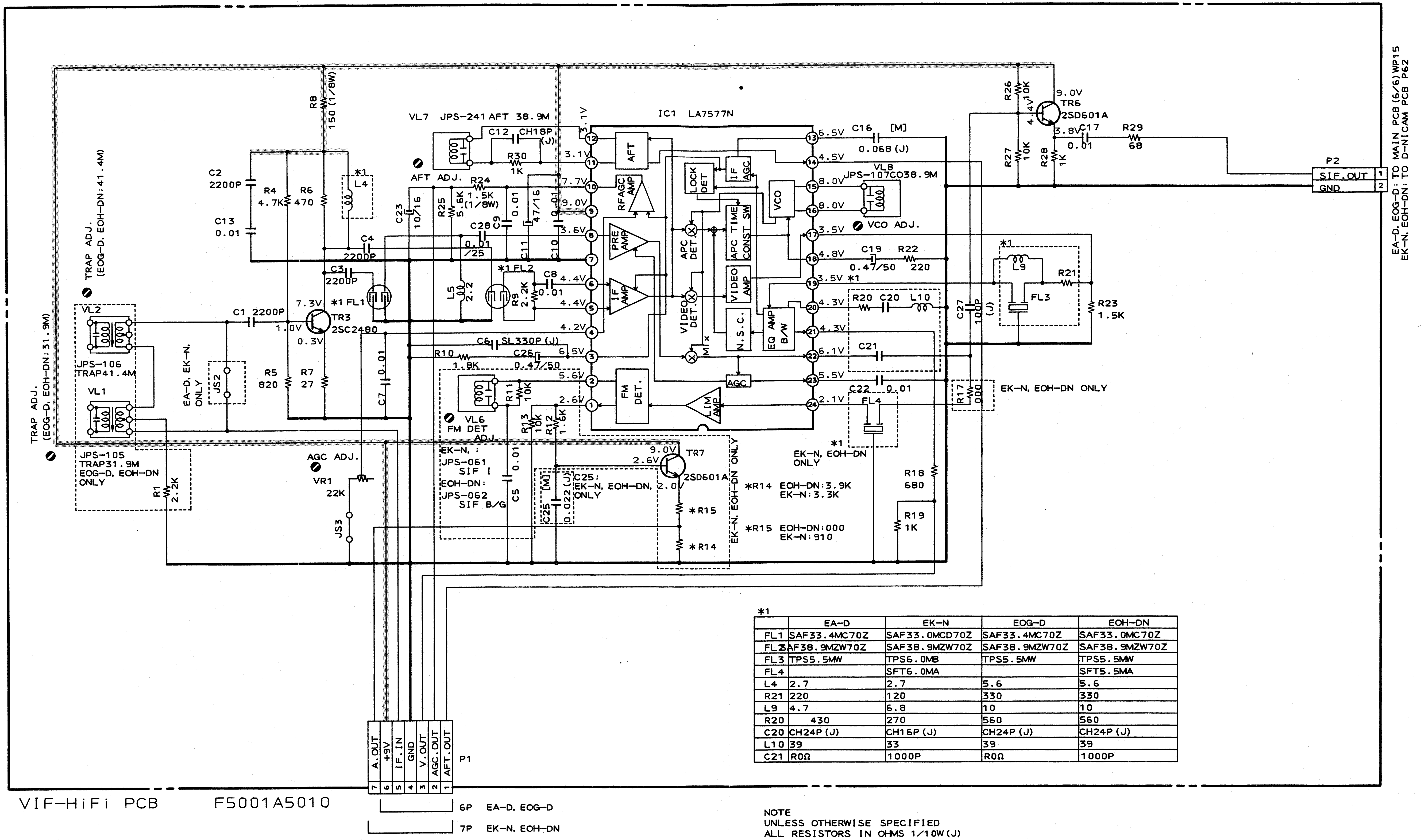
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN μF 50WV (J)
ALL ELECTROLYTIC CAPACITORS IN μF/WV (M)
ALL INDUCTORS IN μH (J)

VS-G2DPL EK-N/EOH-DN
/SEG-N
D-NICAM
SCHEMATIC DIAGRAM
No.15-11 V124411M
A2


A
B
C
D
E
IC1
IC2
IC3
IC101
IC102
IC103
IC201
FL101
FL102
FL201
X1
X101
X201
VL101 [SUB]
VL102 [MAIN]
TR101
TR102
TR201
TR202
TR203
TR204
TR205
TR301
TR302
P7
P8
P62
V1244A5030 94V0
EXCEPT SEG
2P:EXCEPT SEG
4P:SEG ONLY
A.GND
D.GND
I²C SDA
I²C SCL
IDL5V
AL9V
AL12V
TU.A.L
TU.A.R
FM.MONO
S.DET
NC

D-NICAM PCB V1244A5030

NOTE: PARTS DIFFER DEPENDING ON MODEL NUMBER.
REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT
PARTS INFORMATION.


IC1 LA7577N
VL7 JPS-241 AFT 38.9M
AFT ADJ.
VL8 JPS-107CO38.9M
VCO ADJ.
TRAP ADJ. (EOG-D, EOH-DN:41.4M)
TRAP ADJ. (EOG-D, EOH-DN:31.9M)
VL2 JPS-106 TRAP41.4M
VL1 JPS-105 TRAP31.9M EOG-D, EOH-DN ONLY
VL6 FM DET ADJ.
EK-N, : JPS-061 SIF I
EOH-DN: JPS-062 SIF B/G
AGC ADJ.
VR1 22K
JS2 EA-D, EK-N, ONLY
JS3
TR3 2SC2480
TR6 2SD601A
TR7 2SD601A
AFT
RFAGC AMP
PRE AMP
IF AMP
LOCK DET
IF AGC
VCO
APC DET
APC TIME CONST SW
VIDEO AMP
VIDEO DET.
N.S.C.
EQ AMP B/W
MIX
AGC
FM DET.
LIM AMP
R8 150 (1/8W)
C2 2200P
R4 4.7K
R6 470
C13 0.01
*1 L4
C4 2200P
C3 2200P
*1 FL1
C1 2200P
R5 820
R7 27
C7 0.01
C23 10/16
R25 5.6K
R24 1.5K (1/8W)
C28 0.01 /25
C9 0.01
C11 47/16
C10 0.01
C12 CH18P (J)
R30 1K
L5 2.2
*1 FL2
R9 2.2K
C8 0.01
C6 SL330P (J)
R10 1.8K
C26 0.47/50
R11 10K
R13 10K
R12 1.6K
C5 0.01
C25 [M] 0.022 (J)
C25: EK-N, EOH-DN, ONLY
EK-N, EOH-DN ONLY
*R15
*R14
*R14 EOH-DN:3.9K EK-N:3.3K
*R15 EOH-DN:000 EK-N:910
R1 2.2K
C16 [M] 0.068 (J)
C19 0.47/50
R22 220
R20 C20 L10
C21
C22 0.01
*1 FL4
EK-N, EOH-DN ONLY
R17 000
EK-N, EOH-DN ONLY
R18 680
R19 1K
C27 100P (J)
*1 L9
FL3
R21
R23 1.5K
R26 10K
R27 10K
R28 1K
C17 0.01
R29 68
P2 SIF.OUT GND
EA-D, EOG-D: TO MAIN PCB (6/6) WP15
EK-N, EOH-DN: TO D-NICAM PCB P62
P1
A.OUT +9V IF.IN GND V.OUT AGC.OUT AFT.OUT
7 6 5 4 3 2 1
6P EA-D, EOG-D
7P EK-N, EOH-DN
1.0V 0.3V 7.3V
3.1V 7.7V 9.0V 3.6V 4.4V 4.4V 4.2V 5V 5.6V 2.6V
6.5V 4.5V 8.0V 8.0V 3.5V 4.8V 3.5V 4.3V 4.3V 6.1V 5.5V 2.1V
9.0V 4.4V 3.8V
9.0V 2.6V 2.0V
A B C D E F G H
1 2 3 4 5 6

VIF-HiFi PCB F5001A5010

*1

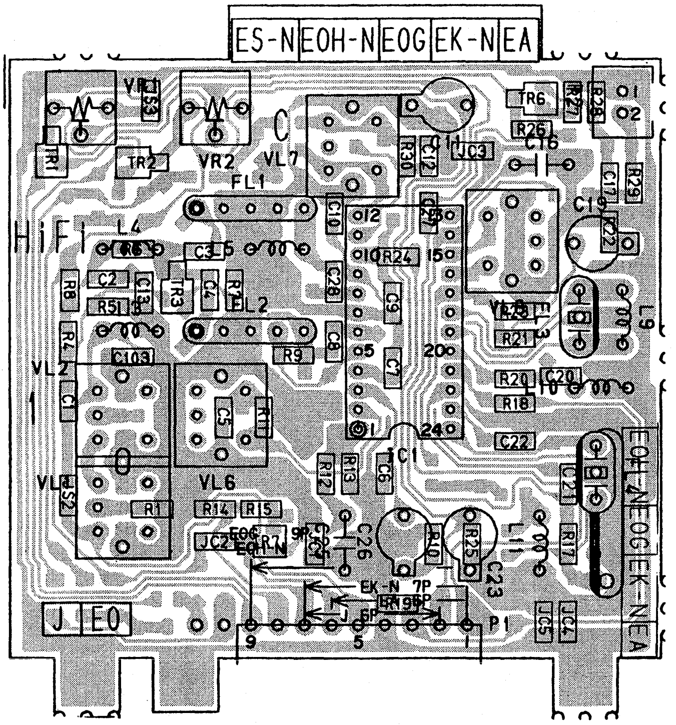
	EA-D	EK-N	EOG-D	EOH-DN
FL1	SAF33.4MC70Z	SAF33.0MCD70Z	SAF33.4MC70Z	SAF33.0MC70Z
FL2	SAF38.9MZW70Z	SAF38.9MZW70Z	SAF38.9MZW70Z	SAF38.9MZW70Z
FL3	TPS5.5MW	TPS6.0MB	TPS5.5MW	TPS5.5MW
FL4		SFT6.0MA		SFT5.5MA
L4	2.7	2.7	5.6	5.6
R21	220	120	330	330
L9	4.7	6.8	10	10
R20	430	270	560	560
C20	CH24P (J)	CH16P (J)	CH24P (J)	CH24P (J)
L10	39	33	39	39
C21	R0Ω	1000P	R0Ω	1000P

▬ B (POWER SUPPLY) LINE

INDICATED VOLTAGES WERE MEASURED
DURING E-E (STOP) MODE.
(WHEN A STATION WAS BEING RECEIVED)

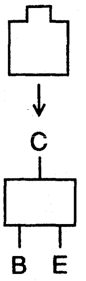
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/10W (J)
ALL CAPACITORS IN µF 50WV (K)
ALL INDUCTORS IN µH (J)
ALL ELECTROLYTIC CAPACITORS IN µF/WV (M)

VS-G2DPL EA-D/EK-N/
EOG-D/EOH-DN
VIF-HiFi
SCHEMATIC DIAGRAM
No.15-12 V124412M
A2

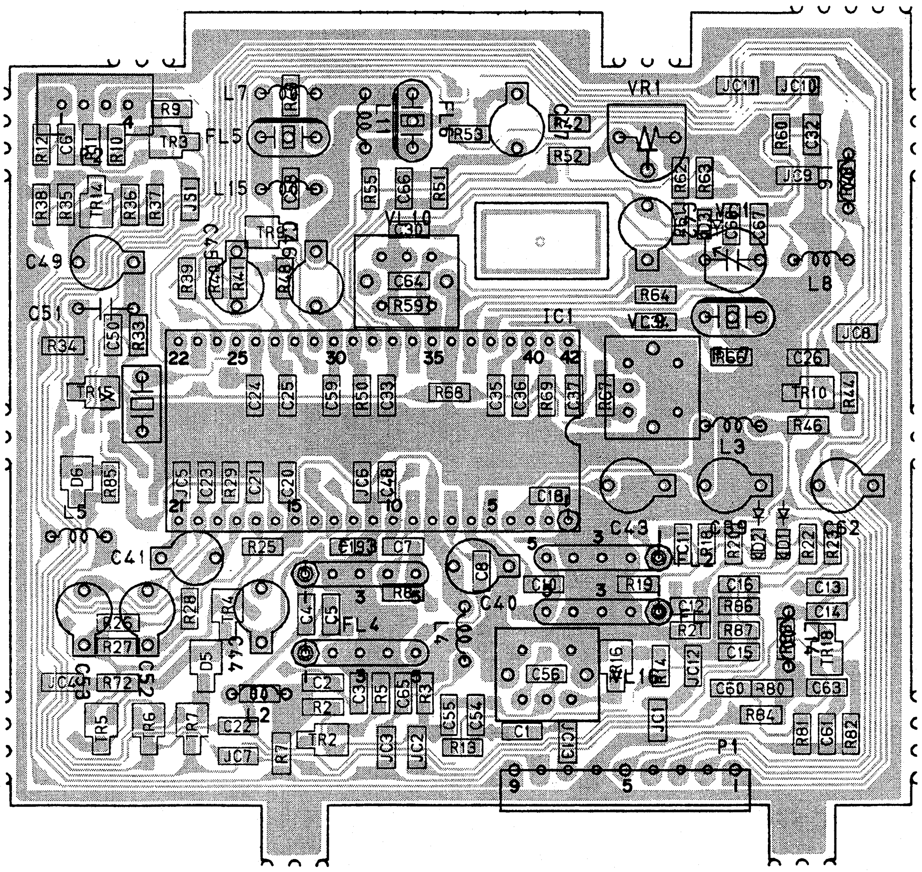

ES-N
EOH-N
EOG
EK-N
EA
VR1
C53
TR1
TR2
VR2
VL7
FL1
C11
R30
C12
JC3
TR6
R27
R28
R26
C16
C17
R29
C19
R22
HiFi
L4
R6
C3
L5
C10
C2
C13
R51
TR3
C4
R7
FL2
R8
R4
C103
R9
C28
C9
C8
C7
R24
12
10
15
5
20
1
24
VL8
R23
R21
L9
R20
C20
R18
C22
VL2
C1
C5
R11
IC1
R12
R13
C6
VL1
S2
R1
VL6
R14
R15
EOG
EOH-N
JC2
9P
C26
R10
R25
C23
L11
R17
C21
EK-N
7P
6P
R19
P1
J
EO
9
5
1
JC5
JC4
EOH-N
EOG
EK-N
EA

VIF-Hi-Fi PCB F5001A5010

SINGLE CHIP TRANSISTOR

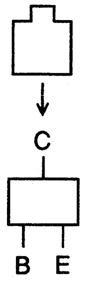


NOTE : PART DIFFER DEPENDING ON MODEL NUMBER. REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT PARTS INFORMATION.

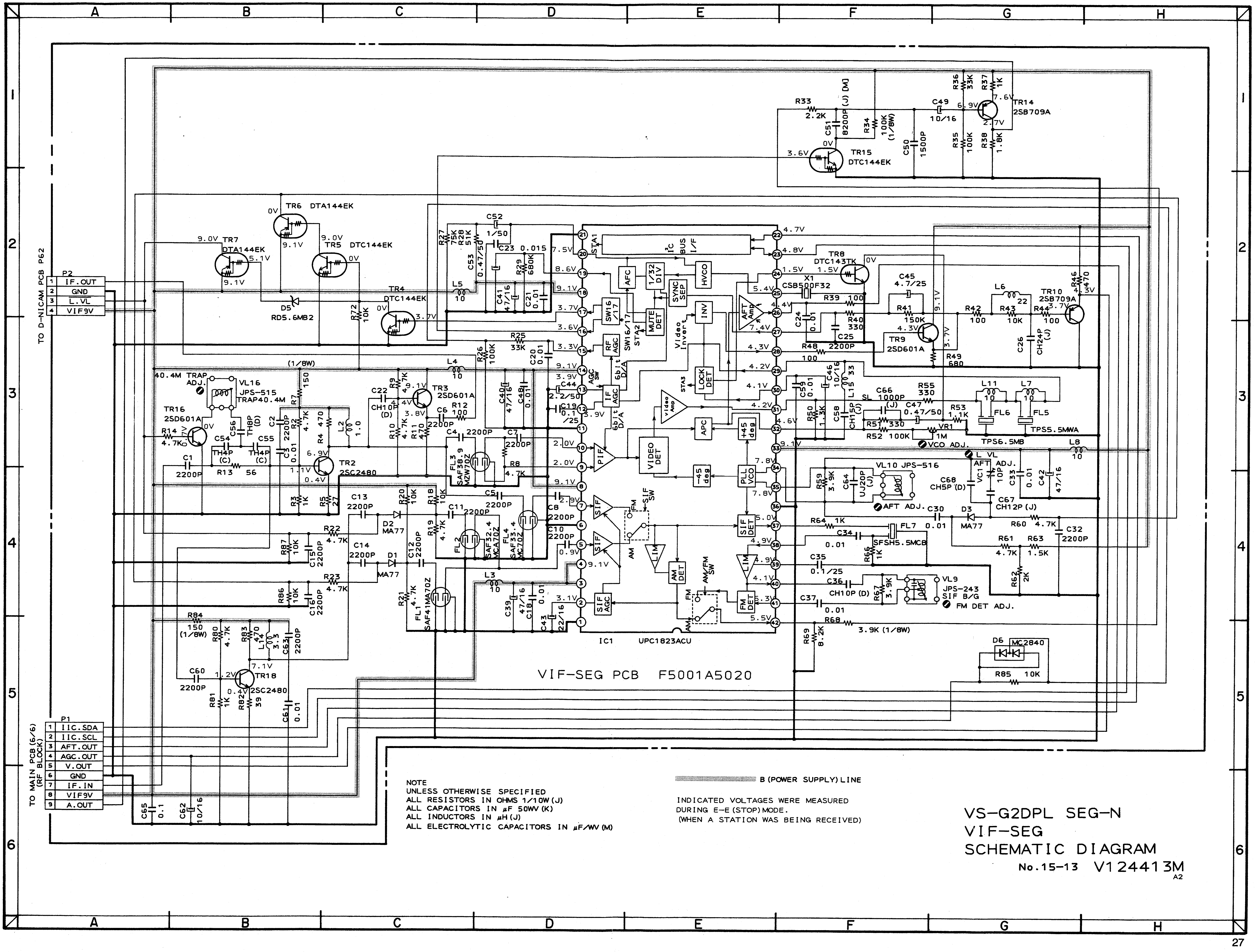

L7
FL5
L15
FL6
R53
R42
R52
VR1
JC11
JC10
R60
C32
JC9
R9
TR3
R12
C6
R10
R38
R35
TR14
R36
R37
JS1
TR9
R55
C66
R51
C30
C64
R59
R62
R63
L8
C49
R39
R41
R48
R64
C51
C50
R33
R34
IC1
22
25
30
35
40
42
R56
C26
JC8
TR10
R44
C24
C25
C59
R50
C33
R68
C35
C36
R69
C37
R67
R46
L3
D6
R85
L5
JC5
C23
R29
C21
C20
JC6
C48
21
15
10
5
C18
C43
C62
R22
C41
R25
C19
C7
C8
C16
C13
C40
R19
C12
R86
C14
R21
R87
R26
R27
R20
TR4
C4
C5
FL4
R8
R16
C15
R74
JC12
TR18
JC4
R72
C53
C52
D5
C44
C2
C56
C60
R80
C63
C3
R5
C65
R3
R84
R5
R6
R7
C22
R2
L2
C55
C54
C1
JC1
R81
C61
R82
JC7
R1
TR2
JC3
JC2
R13
JC13
P1
9
5
1

VIF-SEG PCB F5001A5020

SINGLE CHIP TRANSISTOR



NOTE : PARTS DIFFER DEPENDING ON MODEL NUMBER. REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT PARTS INFORMATION.


A
B
C
D
E
F
G
H
1
2
3
4
5
6
TO D-NICAM PCB P62
P2
1 IF.OUT
2 GND
3 L.VL
4 VIF9V
TO MAIN PCB(6/6) (RF BLOCK)
P1
1 IIC.SDA
2 IIC.SCL
3 AFT.OUT
4 AGC.OUT
5 V.OUT
6 GND
7 IF.IN
8 VIF9V
9 A.OUT
TR6 DTA144EK
TR7 DTA144EK
TR5 DTC144EK
TR4 DTC144EK
D5 RD5.6MB2
TR16 2SD601A
TR2 2SC2480
TR3 2SD601A
TR18 2SC2480
VL16 JPS-515 TRAP40.4M
40.4M TRAP ADJ.
FL1 SAF41MA70Z
FL2 SAF32.4 MCA70Z
FL3 SAF38.9 MZW70Z
FL4 SAF33.4 MC70Z
D1 MA77
D2 MA77
IC1 UPC1823ACU
I²C BUS I/F
AFC
1/32 DIV
SYNC SEP
HVCO
MUTE DET
SW16/17
STA1
STA2
STA3
RF AGC
IF AGC
AGC SW
6bit D/A
INV
Video Invert
AFT Amp
LOCK DET
Video Amp
APC
+45 deg
-45 deg
VIDEO DET
PIF
PLL VCO
SIF
SIF SW
FM
AM
LIM
AM DET
AM/FM SW
SIF DET
SIF AGC
FM DET
TR8 DTC143TK
TR9 2SD601A
TR10 2SB709A
TR14 2SB709A
TR15 DTC144EK
X1 CSB500F32
FL5 TPS5.5MWA
FL6 TPS6.5MB
FL7 SFSH5.5MCB
VL10 JPS-516
VL9 JPS-243 SIF B/G
D3 MA77
D6 MC2840
VCO ADJ.
L VL
AFT ADJ.
FM DET ADJ.
VR1 1M
VIF-SEG PCB F5001A5020

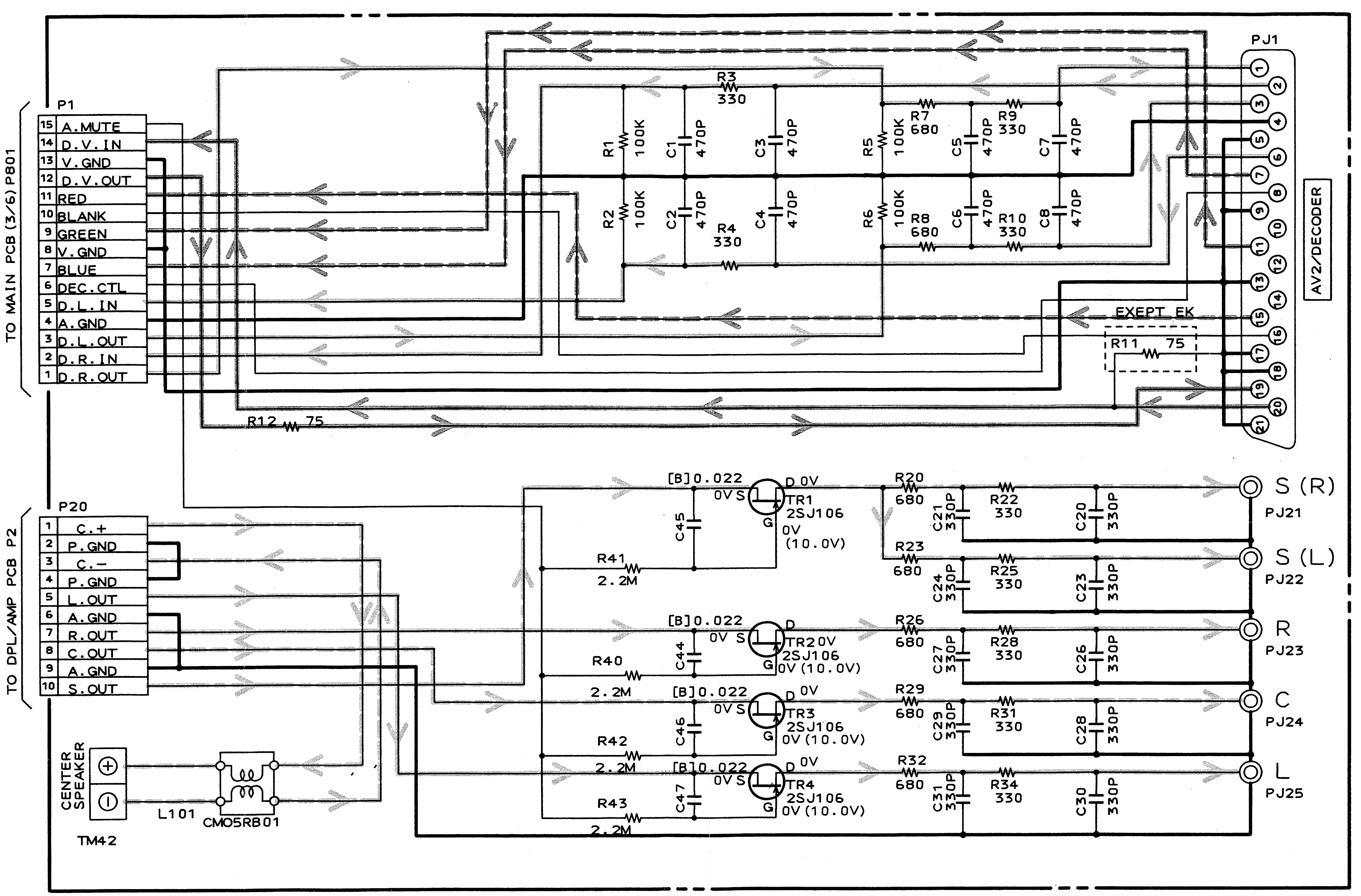
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/10W (J)
ALL CAPACITORS IN µF 50WV (K)
ALL INDUCTORS IN µH (J)
ALL ELECTROLYTIC CAPACITORS IN µF/WV (M)

▨ B (POWER SUPPLY) LINE

INDICATED VOLTAGES WERE MEASURED
DURING E-E (STOP) MODE.
(WHEN A STATION WAS BEING RECEIVED)

VS-G2DPL SEG-N
VIF-SEG
SCHEMATIC DIAGRAM

No.15-13 V124413M
A2



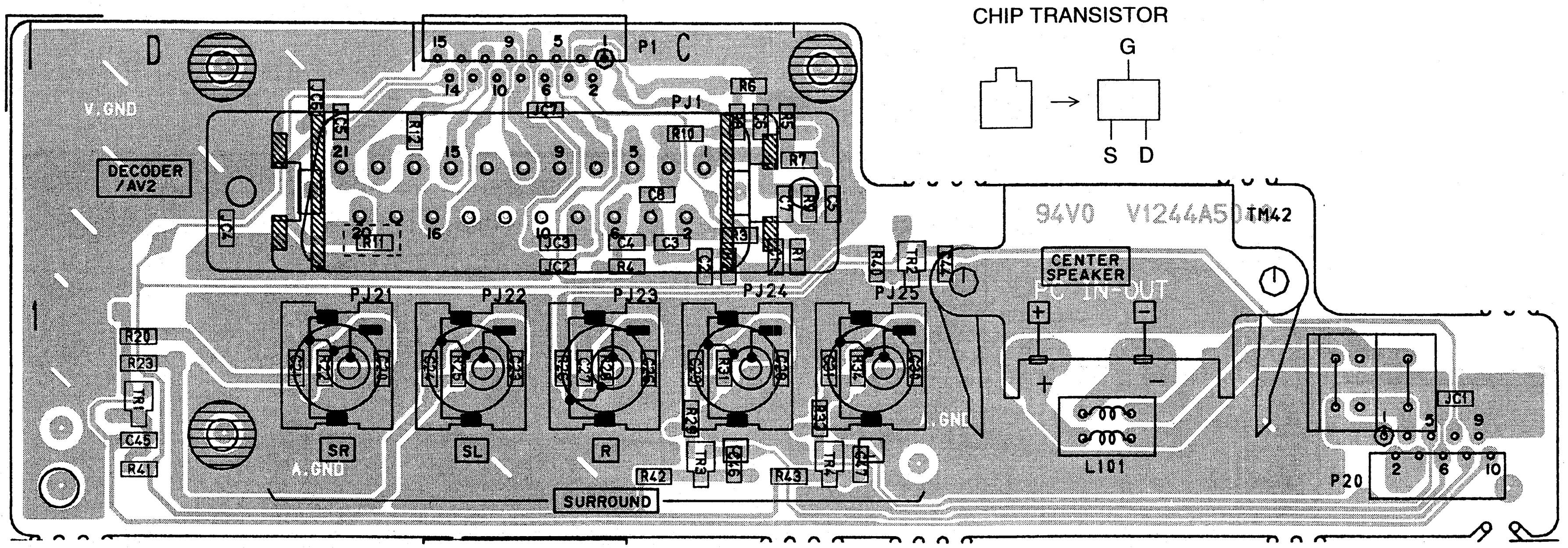
P1
TO MAIN PCB (3/6) PB01
15 A.MUTE
14 D.V.IN
13 V.GND
12 D.V.OUT
11 RED
10 BLANK
9 GREEN
8 V.GND
7 BLUE
6 DEC.CTL
5 D.L.IN
4 A.GND
3 D.L.OUT
2 D.R.IN
1 D.R.OUT
R12 75
R3 330
R1 100K
R2 100K
C1 470P
C2 470P
C3 470P
C4 470P
R4 330
R5 100K
R6 100K
R7 680
R8 680
C5 470P
C6 470P
R9 330
R10 330
C7 470P
C8 470P
PJ1
AV2/DECODER
EXEPT EK
R11 75
P20
TO DPL/AMP PCB P2
1 C.+
2 P.GND
3 C.−
4 P.GND
5 L.OUT
6 A.GND
7 R.OUT
8 C.OUT
9 A.GND
10 S.OUT
CENTER SPEAKER
TM42
L101
CM05RB01
[B]0.022
C45
R41 2.2M
TR1 2SJ106
D 0V
0V S
G 0V (10.0V)
[B]0.022
C44
R40 2.2M
TR2 2SJ106
[B]0.022
C46
R42 2.2M
TR3 2SJ106
[B]0.022
C47
R43 2.2M
TR4 2SJ106
R20 680
C21 330P
R22 330
C20 330P
S (R) PJ21
R23 680
C24 330P
R25 330
C23 330P
S (L) PJ22
R26 680
C27 330P
R28 330
C26 330P
R PJ23
R29 680
C29 330P
R31 330
C28 330P
C PJ24
R32 680
C31 330P
R34 330
C30 330P
L PJ25

IN−OUT PCB V1244A5040

NOTE;
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN µF (P=PF)
ALL INDUCTORS IN µH (K)
INDICATED VOLTAGES WERE
MEASURED DURING PB MODE.
( ) : WHEN THE POWER SW
IS TURNED OFF

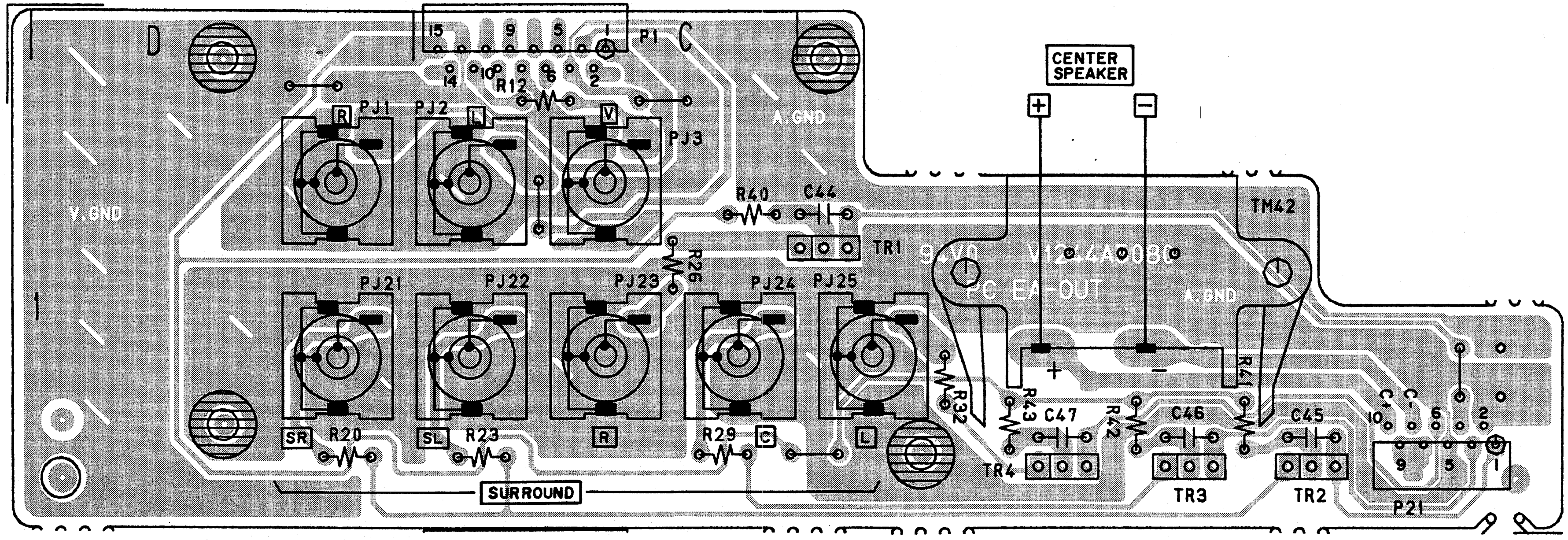
NORMAL/FRONT AUDIO SIGNAL LINE
DPL SURROUND SIGNAL LINE
DPL CENTER SIGNAL LINE
VIDEO SIGNAL LINE
RGB SIGNAL LINE

VS−G2DPL EK−N/EOG−D/
EOH−DN/SEG−N
IN−OUT
SCHEMATIC DIAGRAM
No.15−14 V124414M
A3

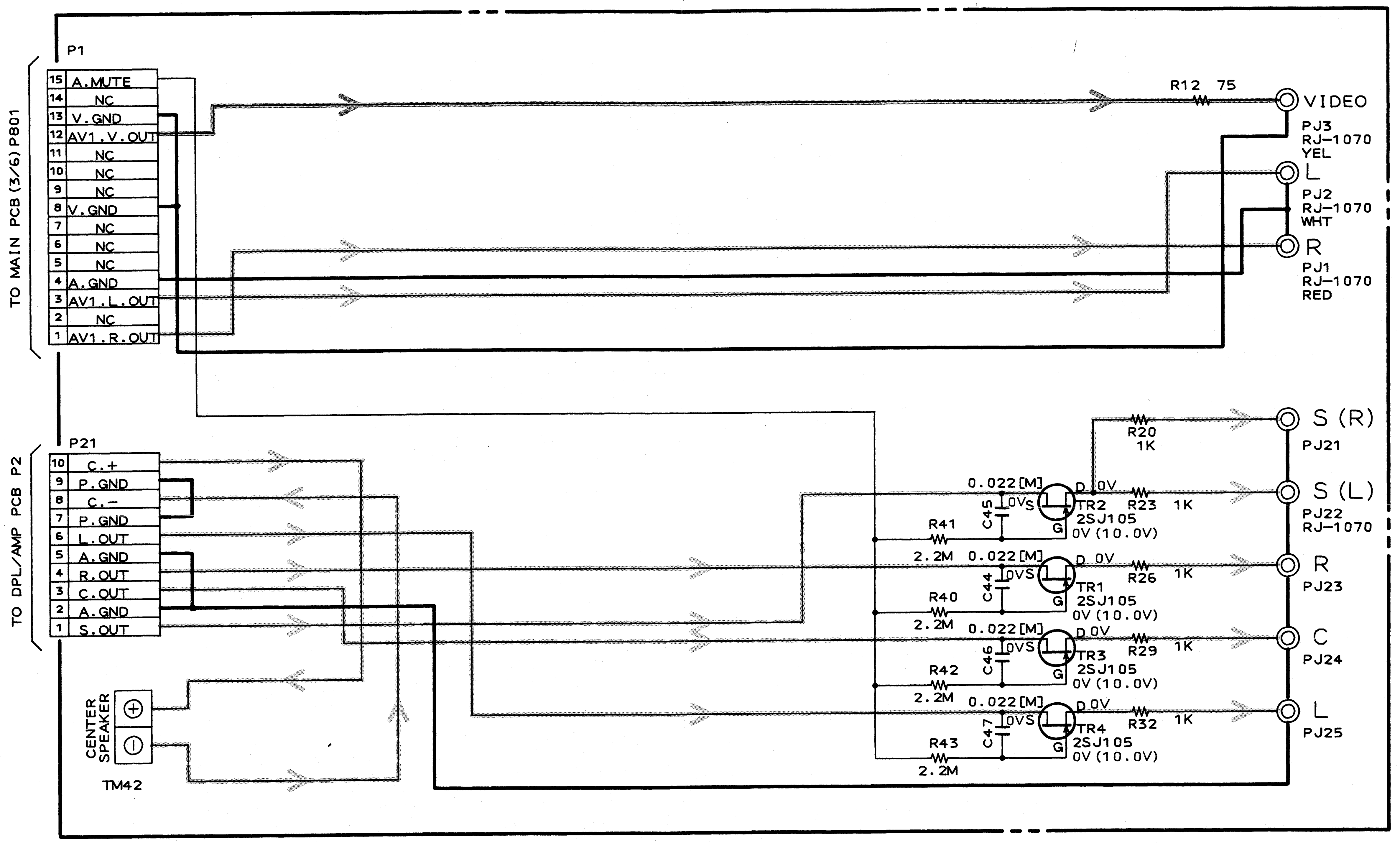

CHIP TRANSISTOR
G
S D
P1
PJ1
V.GND
DECODER /AV2
94V0 V1244A5040
TM42
CENTER SPEAKER
PC IN-OUT
PJ21
PJ22
PJ23
PJ24
PJ25
SR
SL
R
L
A.GND
GND
SURROUND
L101
JC1
P20
R1
R3
R4
R6
R7
R10
R11
R12
R20
R23
R41
R42
R43
C3
C4
C8
C45
JC2
JC3
JC7
TR1
TR2
TR3
TR4

IN-OUT PCB V1244A5040

NOTE: PARTS DIFFER DEPENDING ON MODEL NUMBER. REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT PARTS INFORMATION.


P1
15
9
5
1
14
10
R12
6
2
D
C
PJ1
PJ2
PJ3
R
L
V
A.GND
V.GND
R40
C44
TR1
R26
CENTER SPEAKER
+
−
TM42
9-V0
V1244A5080
PC EA-OUT
A.GND
PJ21
PJ22
PJ23
PJ24
PJ25
SR
R20
SL
R23
R
R29
C
L
SURROUND
R32
R43
C47
R42
C46
R41
C45
TR4
TR3
TR2
C+
C-
10
6
2
9
5
1
P21

EA-OUT PCB V1244A5080


P1
TO MAIN PCB (3/6) P801
15 A.MUTE
14 NC
13 V.GND
12 AV1.V.OUT
11 NC
10 NC
9 NC
8 V.GND
7 NC
6 NC
5 NC
4 A.GND
3 AV1.L.OUT
2 NC
1 AV1.R.OUT
R12 75
VIDEO
PJ3
RJ-1070
YEL
L
PJ2
RJ-1070
WHT
R
PJ1
RJ-1070
RED
P21
TO DPL/AMP PCB P2
10 C.+
9 P.GND
8 C.−
7 P.GND
6 L.OUT
5 A.GND
4 R.OUT
3 C.OUT
2 A.GND
1 S.OUT
CENTER SPEAKER
⊕
⊖
TM42
S (R)
R20
1K
PJ21
S (L)
PJ22
RJ-1070
0.022[M]
C45
0VS
D 0V
TR2
2SJ105
G
0V (10.0V)
R23 1K
R41
2.2M
0.022[M]
C44
0VS
D 0V
TR1
2SJ105
0V (10.0V)
R26 1K
R
PJ23
R40
2.2M
0.022[M]
C46
0VS
D 0V
TR3
2SJ105
0V (10.0V)
R29 1K
C
PJ24
R42
2.2M
0.022[M]
C47
0VS
D 0V
TR4
2SJ105
0V (10.0V)
R32 1K
L
PJ25
R43
2.2M

EA−OUT V1244A5080

▬▬▬▬ NORMAL/FRONT SIGNAL LINE

▬▬ ▬ ▬▬ DPL SURROUND SIGNAL LINE

▬ ▬ ▬ ▬ DPL CENTER SIGNAL LINE

▬▬▬▬ VIDEO SIGNAL LINE

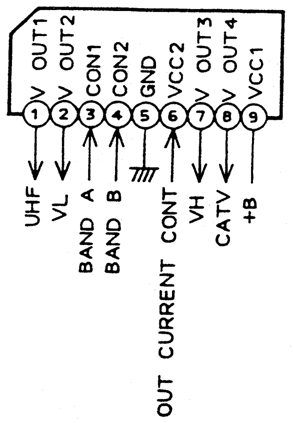
NOTE;
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μF (P=PF)
ALL INDUCTORS IN μH (K)
INDICATED VOLTAGES WERE
MEASURED DURING PB MODE.
( ) :WHEN THE POWER SW
IS TURNED OFF

VS−G2DPL EA−D
EA−OUT
SCHEMATIC DIAGRAM
No.15−15 V124414M
A3

LA7256 (REC/HEAD AMP FOR Hi-Fi FM AUDIO)

PIN No.	PORT NAME	I/O	FUNCTION
1	ASWP	–	CH-1/CH-2 switching pulse input pin.
2	$\overline{\text{LP}}$/SP	–	AMP gain select control regarding the tape speed. (L : SP, H : LP)
3	PB FM OUT	O	PB AFM signal output pin.
4	REC MUTE	–	REC MUTE control pin. (L : mute off, H : mute on)
5	REC/$\overline{\text{PB}}$	–	REC/PB select control. (L : PB, H : REC)
6	GND	–	Ground pin for PB output stage & REC.
7	BUFF IN	I	Buffer AMP input pin.
8	BUFF OUT	O	Buffer AMP output pin.
9	REC FM IN	I	REC AFM signal input pin.
10	AGC FILT	–	This pin detects REC AMP's AGC DET output.
11	REC MODE	–	REC mode control pin. (L : normal, M : over REC, H : S-VHS)
12	REC OUT GND	–	Ground pin for REC AMP output stage.
13	REC CURR ADJ	–	REC current control pin.
14	Vcc	–	+5 V supply pin.
15	REC BIAS	–	REC current AMP input section.
16	REC OUT	O	REC curent output & PB on switch.
17	CH-2 IN	I	CH-2 PB AMP input pin.
18	PSW2	O	CH-2 head REC current supply pin.
19	FILT2	–	CH-2 PB AMP DC bias control.
20	CH-1 IN	I	CH-1 PB AMP input pin.
21	PB GND	–	Ground for PB AMP.
22	FILT1	–	CH-1 PB AMP DC bias control.
23	NC	–	No connection.
24	PSW1	O	CH-1 head REC current supply pin.

LA7910 (TUNER BAND SELECTOR)



INPUT		OUTPUT			
CON1	CON2	V OUT1	V OUT2	V OUT3	V OUT4
L	L	H	Z	Z	Z
H	L	Z	H	Z	Z
L	H	Z	Z	H	Z
H	H	Z	Z	Z	H

Z:HIGH IMPEDANCE

LA7447BM (Y/C SIGNAL PROCESSOR)

PIN No.	PORT NAME	I/O	FUNCTION
1	MAIN-EMPH	–	Main emphasis filter pin.
2	NL-EMPH	–	Main emphasis filter.
3	PIC-CTL/EDIT	–	Picture control (soft: 2.0 - 2.45 V, hard: 2.55 - 3.0V)/edit (3.8 V or more).
4	AGC-TC2	–	Capacitor connecting pin for AGC DET.
5	YNR-CTL	–	YNR-OFF: 1.0 V or less, YNR-CTL: 1.5 - 2.5 V, YNR-STRONG: 3.5 V or more.
6	NC-CTL	–	NC (noise cancel) off (PB): 1.5 V or less, NC-CTL (PB): 2.0 - 3.0 V.
7	VIDEO-IN	I	REC/E-E video signal input.
8	Vcc	–	+5 V power supply.
9	C-SYNC OUT	O	Composite sync signal output.
10	VCA-FILT	–	Capacitor connecting pin for VCA.
11	VIDEO-OUT	O	E-E or PB video signal out.
12	C.ROT	I	Chroma rotary pulse input.
13	VCA-IN	I	VCA AMP input.
14	QV,QH,CHA-IN	I	Quasi V-pulse & Quasi H-pulse input/character signal input.
15	CCD DRIVE	O	Y signal out pin to Y-CCD.
16	AGC-TC1/BAL	–	Capacitor connection pin for AGC-TC1 and balancer.
17	C-CCD DRIVE1	O	Chroma signal out pin to chroma CCD1.
18	NL-ON	–	L or H: NL OFF, M: NL ON (weak).
	DETAIL-ENHA	–	L or H: detail enhancer normal, M: weak & fc down.
19	C-CCD DRIVE2	O	Chroma signal out pin to chroma CCD2.
20	GND	–	Ground terminal.
21	C-CCD IN	I	Chroma signal input pin from chroma CCD.
22	MODE-CTL	–	SP: 0 - 1.2 V, LP: 2.0 - 2.7 V, EP: 3.9 - 5.0 V.
23	CHROMA-IN	I	Chroma signal input from comb filter.
	SP CS-STOP	–	H: SP carrier shift stop.
24	NAP CTL	–	NAP: 3.3 - 5.0 V, B.M out: 2.0 - 2.7 V, THRU: 0 -1.2 V.
25	CHROMA-OUT	O	PB chroma signal output. H (SECAM mode): mute ON.
26	$\overline{\text{P}}$/S/N	–	Colour mode switching pin (NTSC: 3.9 - 5.0 V, MESEC: 2.0 - 2.7 V, PAL: 0-1.2V).
27	VXO-IN1	I	Crystal connecting pin (4.43 MHz).
28	VXO-OUT1	O	Crystal connecting pin (4.43 MHz).
29	REC-APC FIL	–	Capacitor connecting pin for REC APC detector.
	TRICK-H	–	3.9 V or more after COMB in SP mode.
30	N.C	–	Not used.
31	N.C	–	Not used.
32	N.C	–	Not used.
33	Vcc-1	–	+5 V power supply pin.
34	BGP-OUT	O	Burst gate pulse output pin.
35	N.C	–	Not used.
36	SLD-FILT	–	Capacitor connecting pin for SLD.
37	AFC/APC FILT	–	Capacitor connecting pin for AFC DET (REC) or APC DET (PB).
38	REC C-OUT	O	REC low chroma signal output.
	PB C-IN	I	PB low chroma signal input.
39	KILL-FILT	–	Capacitor connecting pin for killer detector.
40	KILLER-OUT	O	REC: APC killer out (H: killer ON).
	SLD-OUT	O	PB: side lock detector pulse output.
41	ACC-FILT	–	Capacitor connecting pin for ACC AMP.
42	GND	–	Ground pin.
43	PB FM-IN	I	PB-Y FM signal input.
44	MOD-OUT	O	REC-Y modulator output signal.
	DOC-STOP	–	Drop-out compensator control (H: DOC stop).
45	VREG	–	4.2 V regulator out.
46	REC-Y	O	REC-Y signal output.
	MAIN DE-EMPH OUT	O	Main de-emphasis output.
47	CLAMP	I	Clamp circuit input.
48	EMPH-OUT	–	Main emphasis out.
	R/P CTL	–	REC/PB control (PB: H).

LA70011 (4-CH REC/HEAD AMPLIFIER)

PIN No.	PORT NAME	I/O	FUNCTION
1	TRICK.H	I	3.0V > : trick 1 mode, 3.0 - 1.0 V : normal mode, 1.0 V < : trick 2 mode.
2	COMP-OUT	O	Comparator output for head switching between LP and SP head during search (trick) mode. (LP>SP ENV : "H") (PB : H : > 4.0V, L : < 0.7 V REC : open)
3	HA	I	SP/LP select control pin. (1.5 V > : LP mode, 1.5 V < : SP mode)
4	SW30	I	Switching pulse input (H-ch : > 1.0 V, L-ch : < 1.0 V). (SP mode : L→CH-1, H→CH-2, LP mode : L→CH-2, H→CH-1)
5	H-SYNC	I	H sync input pin. (threshold level : 1.5 V)
6	ENVDET-OUT	O	Envelope detect output for auto tracking.
7	PB-OUT	O	PB Y-FM signal output.
8,20	GND	–	Ground pin.
9	REC-Y IN	I	REC Y-FM signal input pin.
10	REC-C IN	I	REC chroma signal input pin.
11	REC/MUTE/PB	I	REC/REC mute/PB control pin. 1.0 V < : PB mode, 1.0V - 3.0 V : REC (mute) mode, 3.0 V > : REC mode.
12	REC.CUR ADJ2	I	REC current adjust pin. REC current can be adjusted within –6.0 dB to +3.5 dB from the value that is set at 14 pin (REC.CUR ADJ1).
13	Vcc	–	Power supply of this IC.
14	REC.CUR ADJ1	I	If 12 pin is open, REC current is set by the resistor that is connected between 13 pin and this pin.
15	REC AGC FILT	–	Capacitor connecting pin for REC AGC circuit.
16	SP CH-1 IN	I	PB : SP channel-1 head AMP input. (REC : Vcc output)
17	REC SP OUT	O	REC SP pull down output.
18	PB FILT	I	This pin will be internally grounded on PB mode.
19	SP CH-2 IN	I	PB : SP channel-2 head AMP input. (REC : Vcc output)
21	LP CH-2 IN	I	PB : LP channel-2 head AMP input. (REC : Vcc output)
22	REC LP OUT	O	REC LP pull down output.
23	PB FILT	I	This pin will be internally grounded on PB mode.
24	LP CH-1 IN	I	PB : LP channel-1 head AMP input. (REC : Vcc output)

LC74763 (CHARACTER GENERAOR)

PIN No	PORT NAME	I/O	FUNCTION
1	Vss	—	Connect the GND
2	XTAL in1	I	14.318 MHz crystal oscillator input
3	XTAL out1	O	14.318 MHz crystal oscillator output
4	H SYNC	O	AFC H sync output
5	XTAL in2	I	17.744 MHz crystal oscillator input
6	XTAL out2	O	17.744 MHz crystal oscillator output
7	V SYNC	O	V. SYNC output
8	$\overline{\text{CS}}$	I	Enable input pin of serial data input
9	SIN	I	Serial data input
10	SCLK	I	Clock input pin for serial data input
11	$\overline{\text{SECAM}}$	I	SECAM mode select pin (H : SECAM MODE)
12	$\overline{\text{525}}$/625	I	Select pin, 525 or 625 of scanning line
13	$\overline{\text{NTSC}}$/PAL	I	NTSC/PAL SELECT PIN (L : NTSC)
14	$\overline{\text{3.58}}$/4.43	I	3.58MHz or 4.43MHz select input
15	$\overline{\text{RST}}$	I	System reset input
16	CVOUT	O	Composite video signal output
17	VDD2	—	Power supply (+5 V)
18	CVIN	I	Composite video signal input
19	CVCR	I	Chroma signal input for SECAM mode
20	SYNC IN	I	Video signal input of internal sync separator circuit
21	SEPC	—	Adjustment pin of internal sync separator circuit
22	Vss	—	Connect the GND
23	PD OUT	O	AFC control voltage output
24	AM PIN	I	Filter connect pin for AFC circuit
25	AM POUT	O	Filter connect pin for AFC circuit
26	FC	I	AFC control voltage input
27, 28	VCO IN (out)	I/O	Coil and capacitor connecting pin of LC oscillator for VCO.
29	SYNC DET	O	Exclusive NOR logic output of H SYNC AND C SYNC
30	VDD1	—	Digital power supply (+5 V)

UPD78043FGF EXHDSPD (OPERATION MI-COM)

PIN No.	PORT NAME	I/O	FUNCTION
1~7 78~80	G1~G10	O	FLD digit data output.
8,52	VDD	–	+5 V power supply.
9	OSD CLK	O	Serial clock output to OSD IC.
10	OSD DATA	O	Serial data output to OSD IC.
11	OSD/$\overline{\text{TEXT}}$	O	OSD/TEXT select pin (pulled up).
12	OSD CS	O	Chip enable output to OSD IC.
13	SYS RDY	O	Syscon transfer ready signal output.
14	SYS CLK	I	Serial clock input from SYS-CON MI-COM.
15	DSP DATA	O	Serial data output to SYS-CON MI-COM.
16	SYS DATA	I	Serial data input from SYS-CON MI-COM.
17	$\overline{\text{RESET}}$	I	Reset signal input.
18	M3L CLK	I/O	I2C bus serial clock in/out for TELE TEXT decoder (not used).
19	I2C EN	O	Selection of I2C BUS or M3L BUS (H : I2C BUS)(pulled up).
20	AVSS	–	Ground for A/D converter.
21	A.S.MUTE	O	TV speaker muting control.
22	TV.S.SW	O	Channel selection out for TV speaker.
23	DPL 4CH	O	DPL mode control (H : 4-ch, L : 2-ch & 3-ch).
24	DPL 2CH	O	DPL mode control (H : 2-ch, L : 3-CH & 4-ch).
25	VR.REC	I	Audio REC level control input (not used).
26	VR.PH	I	Headphone level control input (not used).
27	AR.DET	I	R-ch REC level/level meter detection input (A/D input).
28	AL.DET	I	L-ch REC level/level meter detection input (A/D input).
29	AVDD	–	+5 V analog power supply for A/D converter.
30	AVREF	I	A/D converter reference voltage input. (+5 V)
31	S.PACK	I	S-VHS tape detection switch input. (H : S-VHS tape)
32	N.C	–	No connecton.
33	VSS	–	Ground pin.
34	X1	I	Main clock (5.0 MHz) input/output.
35	X2	O	
36	DPL NOR	O	DPL mode control (H : normal, L:wide & phantom).
37	DPL WIDE	O	DPL mode control (H : wide, L : normal & phantom).
38	NOISE.A	O	DPL test tone signal switching.
39	NOISE.B		
40	NOISE.E		
41	STANDBY	O	Power AMP IC standby control.
42	VOL DATA	O	Serial data output for DPL EVR.
43	VOL CLK	O	Serial clock output for DPL EVR.
44	VOL STB	O	Strobe signal output for DPL EVR.
45	$\overline{\text{SECAM}}$	O	PAL/SECAM switching output.
46	FULL TEXT	I	Not used (pulled down).
47	DAVN	I	VPS/PDC reception data input pin.
48	IC	–	Ground pin.
49	M3L DATA	I/O	M3L BUS serial data in/out for TELE TEXT decoder (not used).
50	I2C DATA	I/O	I2C BUS serial data in/out for VPS/PDC decoder & EEP ROM, etc.
51	I2C CLK	O	I2C BUS serial clock ouput for VPS/PDC decoder & EEP ROM, etc.
53	DEC CTL	I	Scramble on/off judge input (L : scramble on).
54	$\overline{\text{SEC.MES}}$	O	SECAM/MESECAM judge output.
55	DECODER.H	O	If a NICAM reception signal is scrambled, this pin controls to send FM MONO signal to the DECODER.
56	FM MONO.H	O	If a NICAM reception signal is scrambled, this pin switches the signal that comes from via DECODER.
57	MIC.H	I	Detection input, whether a microphone is connected or not (not used).
58,59	K1,K2	I	Key scan input.
60~63	N.C	–	Not used
64~70 72~75	S1~S11	O	FLD segment data output.
71	Vload	–	FLD pull down power supply for blanking.
76~77	N.C	–	No connection.

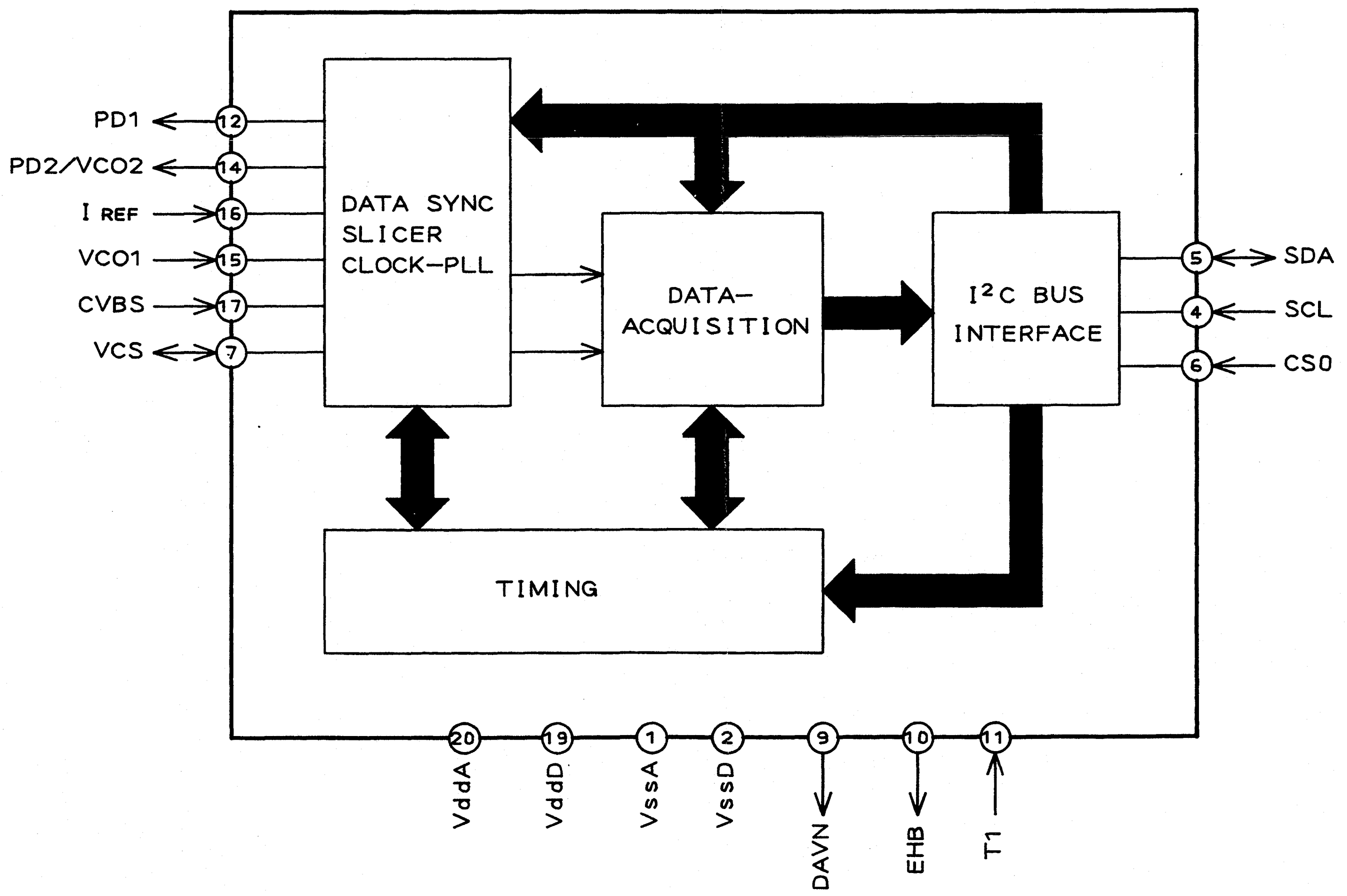
M37774M9-EXHSYPL/EXHSYSL (SYSTEM CONTROL & SERVO MI-COM)

PIN No.	PORT NAME	I/O	FUNCTION
1	SYS RDY	I	Data transfer ready signal input from OPERATION MI-COM.
2	TU PWM	O	Tuning voltage output for tuner. (PWM)
3	CM PWM	O	Capstan motor's speed & phase error output. (PWM)
4	DM PWM	O	Drum motor's speed & phase error output. (PWM)
5	SRP	I	Supply reel pulse input.
6	TRP	I	Take up reel pulse input.
7	S.DET	I	SECAM (MESECAM) judge input. (SECAM/MESECAM : H)
8	C.SYNC	I	Composite sync input. (for video judge)
9	NP	O	NTSC → PAL/NTSC4.43 switching output
10	REC/MUTE/PB	O	REC control for video section (PB : L, REC MUTE : M, REC : H).
11	REMOCON	I	Remote control signal input.
12	PIC/V.REC V	O	PB : picture control output. REC : Video head REC current (AGC) control output.
13	NC CTL	O	Noise cancel circuit control output (I-HQ).
14	V.SWP	O	Video head switching pulse output.
15	C.ROT	O	Chroma rotation pulse output pin.
16	HEAD CTL	O	Video head SP/LP select.
17	COMP OUT	I	Input from PRE AMP's comparator (for head select when CUE/REV).
18	CDC	O	Color compensation control output when LP trick mode.
19	EE	O	E-E mode control pin.
20	VP	O	Quasi V pulse signal output.
21	V.TUNE	O	Tuning output for I-HQ system (L,M or H).
22	YNR	O	Y-noise reduction control output.
23	AREC/MUTE	O	REC mute control output for Hi-Fi audio section (H : mute)
24	DPL OUT L	O	Dolby PRO Logic mute control (H : mute).
25	A.SWP	O	Audio switching pulse output for Hi-Fi head.
26	BU5V	–	+5 V buck up power supply.
27	OSC.H	O	Normal audio & FE oscillator control.
28	TRQ UP	O	Loading motor torque control.
29	LM F	O	Loading motor direction control. (forward)
30	LM R	O	Loading motor direction control. (reverse)
31~33	RSW1~3	I	Input from the rotary (MECHA. position detect) switch 1~3.
34	HI.REW	O	This pin turns to "H" when high speed FF/RWD mode (H : >x11).
35	NUB	–	No connection.
36	NUA	–	No connection.
37	RESET	I	Reset input.
38	X.IN	I	Main clock OSC input. (f=16 MHz)
39	X.OUT	O	Main clock OSC output. (f=16 MHz)
40	CLK SEL	I	Clock select input. (H : main & sub clock OSC are active, L : only sub clock OSC is active)
41	VSS	–	Ground.
42	XC IN	I	Sub clock OSC input. (f=32.768 kHz)
43	XC OUT	O	Sub clock OSC output. (f=32.768 kHz)
44	I2C SCL	O	EEP ROM serial clock output.
45	I2C SDA	I/O	EEP ROM serial data input/output.
46	NTSC	O	NTSC/PAL, MESECAM, SECAM select output.
47	MODU	O	RF converter output on/off control.
48	AL TU	O	AL power supply control output. (H : AL power on)
49	AV1/AV2	O	AV1/AV2 select control output.
50	REC SAF	I	REC safety switch input.
51	VJ	O	Video judge output. (no signal : L)
52	AFT	O	AFT on/off control output (L : on, H : off).
53	BAND A	O	Tuner band select output.
54	BAND B	O	
55	TV/VCR	O	TV/VIDEO select control output.
56	INT/EXT	O	Input select control output.
57	A.MUTE	O	Audio mute control (H : mute).
58	TRICK	O	H when trick mode.
59	TUNE H	O	I-HQ control for video section.
60	T.MUTE	O	Tuner mute control (H : mute).
61	REC/PB	O	REC/PB select control. (L : PB, H : REC/EE)
62	CM STOP	O	Capstan motor stop control.
63	F/R	O	Capstan motor direction control. (FWD/REV)
64	CTL GAIN	O	CTL AMP gain select when FF/REW (FF/RWD : L).
65	AMP VCC	O	+5 V power supply for analog AMP section.
66	DM PG	I	Drum motor PG signal input.
67	DM FG	I	Drum motor FG signal input.
68	CAP FG	I	Capstan motor FG signal input.
69	VREF OUT	O	Reference voltage output for analog AMP.
70	VREF IN	I	Reference voltage input for analog AMP.
71	CTL AMPF	I	CTL clamp AMP positive input.
72	CTL AMPR	I	CTL clamp AMP negative input.
73	AMP OUT	O	CTL AMP output.
74	AMP.C	–	Capacitor connecting pin for CTL AMP.
75	CTLAMP IN	I	CTL AMP input.
76	+SW OUT	O	CTL switched output.
77	CTL+	I/O	CTL positive side input/output.
78	CTL–	I/O	CTL negative side input/output.
79	CTL VSS	–	Ground for CTL.
80	AMP VSS	–	Ground for AMP
81	BU5V	–	+5 V buck up power supply.
82	VREF	–	Reference voltage input for A/D converter.
83	WS.J	I	Wide screen judge signal input.
84	C.K.DET	I	APC killer detect/SLD pulse input.
85	AFT E	I	AFT error signal (analog) input when tuning.
86	ES	I	End sensor input.
87	SS	I	Start sensor input.
88	Hi-Fi DET	I	Hi-Fi ENVE detection input for I-HQ & auto tracking.
89	SP/LP/EP	O	Circuit switching regarding the tape speed (SP : L, LP : M, EP : H).
90	N/S/P	O	NTSC/SECAM/PAL select control (H,M,L).
91	CT DET	I	Cross talk detect input (for auto tracking).
92	V.ENV.DET	I	Video envelope detect input (for auto tracking & I-HQ).
93	C.SYNC	I	Composite sync input. (for internal V-sync separation)
94	WS/NOR	O	AV control voltage switching output during wide screen output .
95	SHORT	I	Power supply abnormal condition detect input. (L : REG voltage is too high or too low)
96	P.DOWN	I	Power down detect input.
97	RESET OUT	O	Reset output to operation MI-COM.
98	SYS DATA	O	Serial data out to operation MI-COM.
99	DSP DATA	I	Serial data in from operation MI-COM.
100	SYS CLK	O	Serial clock output to operation MI-COM.

TDA9614H (Hi-Fi & NORMAL AUDIO SIGNAL PROCESSOR)

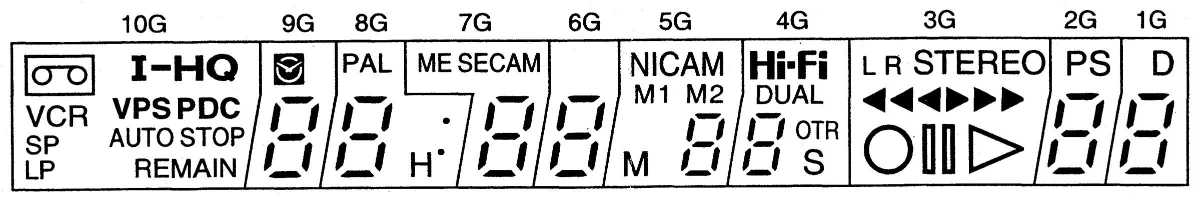
PIN No.	PORT NAME	I/O	FUNCTION
1	SAP	I	SAP input pin. (reserved monaural input)
2	TUNL	I	L-ch tuner input pin.
3	TUNR	I	R-ch tuner input pin.
4	CINL	I	L-ch Cin-ch input pin. (MIC input)
5	CINR	I	R-ch Cin-ch input pin. (MIC input)
6	EXT1L	I	L-ch external 1 input pin.
7	EXT1R	I	R-ch external 1 input pin.
8	EXT2L	I	L-ch external 2 input pin.
9	EXT2R	I	R-ch external 2 input pin.
10	EXT3L	I	L-ch external 3 input pin.
11	EXT3R	I	R-ch external 3 input pin.
12	RAF	O I	Headphone AMP REC/PLAY switching pin. I²C bit RAF non-effective input pin.
13	VDD	–	+5 V digital power supply pin for I²C.
14	SDA	I	I²C BUS serial data input pin.
15	SCL	I	I²C BUS serial clock input pin.
16	VSSD	–	Ground pin for I²C signal.
17	RFCAGC	–	RF converter AGC time constant setting pin.
18	RFCOUT	O	RF converter drive output pin.
19	LINE 2L	O	L-ch 2nd line output pin. (decoder output)
20	LINE 2R	O	R-ch 2nd line output pin. (decoder output)
21	LINE L	O	L-ch line output pin.
22	LINE R	O	R-ch line output pin.
23	DCOUT L	O	L-ch level meter driver pin.
24	DCOUT R	O	R-ch level meter driver pin.
25	HPOUT L	O	L-ch headphone output pin.
26	HPOUT R	O	R-ch headphone output pin.
27	LINAGC	–	Linear audio AGC time constant setting pin.
28	LININ	I	Audio input pin for linear audio that will be supplied to the output select circuit or REC EQ.
29	LINOUT	O	Audio output pin from AGC or PB EQ.
30	EQ SW	–	LP mode PB EQ switching pin.
31	REC EQ	I	Linear audio REC AMP negative input for REC EQ network connection.
32	LINREC	O	This pin drives an external high voltage head switch or bias OSC.
33	RECOUT	O	Linear audio recording AMP output pin.
34	PB IN	I	Linear audio PB AMP input pin.
35	RES SW	–	LP mode PB EQ switching pin.
36	PB DC	–	DC de-coupling capacitor connecting pin for linear audio PB AMP.
37	DCFBL	–	DC feedback pin for L-ch.
38	DCREFL	–	DC reference voltage pin for L-ch.
39	EMPHL	–	L-ch total emphasis setting pin.
40	RECTL	–	L-ch rectifier DC de-coupling pin.
41	DETL	–	L-ch attack/recovery time constant setting pin.
42	VREF	–	Capacitor connecting pin for reference voltage. (+3.8 V)
43	VSSA1	–	Analog ground for LF circuit.
44	DETR	–	R-ch attack/recovery time constant setting pin.
45	RECTR	–	R-ch rectifier DC de-coupling pin.
46	EMPHR	–	R-ch total emphasis setting pin.
47	DCREFR	–	DC reference voltage pin for R-ch.
48	DCFBR	–	DC feedback pin for R-ch.
49	RFIX	–	Fixed bias current generating circuit pin.
50	VDDA1	–	+12 V analog power supply pin for LF circuit.
51	AFNR	I/O	Audio output pin from R-ch NR circuit when recording and by-pass mode. Audio input pin for R-ch NR circuit when PB mode.
52	AFMR	I/O	Audio input pin for R-ch clipping circuit when REC & by-pass mode. Audio output pin from sample & holding circuit.
53	RCCOR	–	Voltage to current converting pin for R-ch OSC that is grounded with an external resistor.
54	VssA1	–	Analog ground pin for Hi-Fi circuit.
55	RBPF	–	Bias current generating pin for internal BPF that is grounded with an external resistor.
56	FM OUT	O	REC FM signal output pin.
57	FM IN	I	PB FM signal input pin.
58	VDDA1	–	+5 V analog power supply pin for Hi-Fi circuit.
59	RCCOL	–	Voltage to current converting pin for L-ch OSC that is grounded with an external resistor.
60	ENV OUT	O	Envelope detector output pin.
61	HID	I	Head ID pulse input pin for sample & holding circuit.
62	CM MUTE	–	Capacitor connecting pin for PB mute timing control.
63	AFML	I/O	Audio input pin for L-ch clipping circuit when REC & by-pass mode. Audio output pin from sampled & holding circuit.
64	AFNL	I/O	Audio output pin from L-ch NR circuit when recording and by-pass mode. Audio input pin for L-ch NR circuit when PB mode.

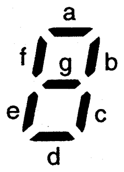
SDA5649X (PDC/VPS DECODER)



FLD FIP10CCM7A

GRID ASSIGNMENT


10G
9G
8G
7G
6G
5G
4G
3G
2G
1G
I-HQ
VCR
SP
LP
VPS PDC
AUTO STOP
REMAIN
PAL
ME SECAM
H
NICAM
M1 M2
M
Hi-Fi
DUAL
OTR
S
L R STEREO
PS
D

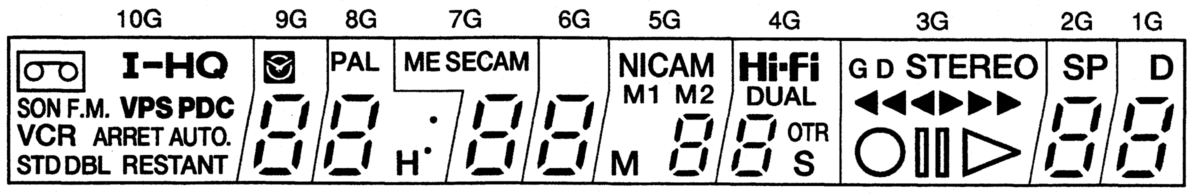


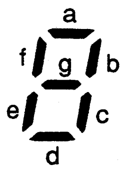
INTERNAL CONNECTION

	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
S1	STOP	a	a	a	a	a	a	▶▶▷	a	a
S2	AUTO	b	b	b	b	b	b	◁◀◀	b	b
S3	VCR	c	c	c	c	c	c	┆▯	c	c
S4	SP	d	d	d	d	d	d	○	d	d
S5	LP	e	e	e	e	e	e	▯┆	e	e
S6	REMAIN	f	f	f	f	f	f	◀◁◁	f	f
S7	🖭	g	g	g	g	g	g	▷	g	g
S8	**VPS**	⊠	H			M	S	▷▷▶	PS	D
S9	**PDC**		•	SECAM		M2	OTR	STEREO		
S10	**I-HQ**		•	ME		M1	DUAL	R		
S11			PAL			NICAM	**Hi-Fi**	L		

FLD FIP10CCM7

GRID ASSIGNMENT


10G
9G
8G
7G
6G
5G
4G
3G
2G
1G
I-HQ
SON F.M. VPS PDC
VCR ARRET AUTO.
STD DBL RESTANT
PAL
ME SECAM
H
NICAM
M1 M2
M
Hi-Fi
DUAL
OTR
S
G D STEREO
SP
D



INTERNAL CONNECTION

	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
S1	ARRET	a	a	a	a	a	a	▶▶▷	a	a
S2	SON F.M.	b	b	b	b	b	b	◁◀◀	b	b
S3	VCR	c	c	c	c	c	c	┆▯	c	c
S4	STD	d	d	d	d	d	d	○	d	d
S5	DBL	e	e	e	e	e	e	▯┆	e	e
S6	🖭	f	f	f	f	f	f	◀◁◁	f	f
S7	RESTANT	g	g	g	g	g	g	▷	g	g
S8	AUTO.	⊠	H			M	S	▷▷▶	SP	D
S9	**VPS**		•	SECAM		M2	OTR	STEREO		
S10	**PDC**		•	ME		M1	DUAL	R		
S11	**I-HQ**		PAL			NICAM	**Hi-Fi**	L		